



1986

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71 Iowa L. Rev. 631-716 (1986).

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January 2010

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Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine

*Richard J. Lazarus**

With th[e public trust doctrine], the California Supreme Court appears enthusiastically to have embraced a new legal Renaissance, in which modern "humanists" rediscover old texts and invoke the distant past to liberate the spirit from the confining "shackles" of a more conventional era. But we are not witnessing Petrarch, mildly unorthodox in reviving Cicero, or Boccaccio retelling irreverent stories borrowed from Ovid. Here, the half-forgotten ancient models are the codes of the Emperor Justinian and Alfonso the Wise of Castille, the Magna Carta wrested from King John and the Treatise of Henry de Bracton. We may question whether such a revolution, not in literature or philosophy, but in the law of property, even on the claim of returning to an earlier wisdom, is equally to be applauded.¹

Natural resources law, historically concerned with the maintenance and orderly exploitation of basic natural resources such as water, fossil fuels, oil, natural gas, mineral deposits, and timber, has undergone a significant transformation in recent years. The emergence of "environmental law" has been the primary focus of attention during this period. Certainly, that emergence has been nothing short of spectacular. The last fifteen years have witnessed a fantastic effort to develop a framework of legal rules reflecting this nation's increased awareness of the adverse impacts of environmental pollution and degradation.² Through a pyramidal imposition of health- and technology-based standards and performance criteria, environmental laws have strived to respond to the reordering of social priorities that has resulted from an enhanced understanding of the need for pollution control. A predecessor to and now contemporary of environmental law, natural resources law is responding as well to increased

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1. Brief of the United States as Amicus Curiae at 4, *Summa Corp. v. California ex rel. State Lands Comm'n*, 104 S. Ct. 1751 (1984) (brief filed at Court's invitation).

2. See generally Elliott, Ackerman & Millian, *Toward a Theory of Statutory Evolution: The Federalization of Environmental Law*, 1 J.L. ECON. & ORG. 313 (1985).

societal environmental awareness and concern. Both apart from and, in certain respects, as a part of environmental law, legal rules governing natural resources are increasingly changing to better accommodate the now-perceived conflicts related to resource utilization. It is time, now, to reexamine natural resources law in light of these developments.

To that end, this Article considers and evaluates the "public trust doctrine," one of the most remarkable legal bases upon which natural resources law has relied in this ongoing transformation. The public trust doctrine is based on an amorphous notion that has been with us since the days of Justinian—the notion that the public possesses inviolable rights in certain natural resources. Commentators first hailed the doctrine in 1970 as offering the most promising legal basis upon which individual members of the public could maintain a lawsuit to protect natural resources from needless degradation and destruction.³ In the seminal article on the trust doctrine, Professor Joseph Sax reconstructed how the mostly dormant doctrine had historically functioned in the United States to safeguard public rights in navigable waterways, and he predicted that the doctrine could expand to embrace broader environmental concerns.⁴

Tantamount to an academic call to legal arms on behalf of the natural environment, the public trust thesis has borne judicial fruit.⁵ In circumstances radically beyond the trust doctrine's historical confines, courts over the last fifteen years have repeatedly invoked the doctrine in litigation brought to halt environmentally destructive activities.⁶

In examining the doctrine, this Article will inquire, first, how the doctrine has operated in litigation brought to further natural resource protection goals and, second, in light of changing conceptions of property and sovereignty in natural resources, whether hindsight teaches that the strategy of relying on the doctrine to promote those goals was sound and should be continued. The first inquiry is addressed in section II, which contains a review of public trust litigation since 1970 that presents an impressive record of achievements for the doctrine in a wide variety of contexts.⁷ The second, more fundamental inquiry concerning the doctrine's

3. See Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 474 (1970). See generally Comment, *The Public Trust Doctrine in Tidal Areas: A Sometime Submerged Traditional Doctrine*, 79 YALE L.J. 762 (1970). The Sax journal publication preceded a more broad-based work by Sax that included the public trust doctrine thesis. See J. SAX, *DEFENDING THE ENVIRONMENT* 158-74 (1971).

4. See Sax, *supra* note 3, at 557.

5. The impact of the public trust doctrine thesis contrasts with that of other less successful contemporaneous submissions offering various theories in support of a constitutional right to a healthy environment. See, e.g., Esposito, *Air and Water Pollution: What to Do While Waiting for Washington*, 5 HARV. C.R.-C.L. L. REV. 32, 45-51 (1970). See generally Kirchick, *The Continuing Search for a Constitutionally Protected Environment*, 4 ENVTL. AFF. 515 (1975); Note, *Towards a Constitutionally Protected Environment*, 56 VA. L. REV. 458 (1970).

6. See *infra* text accompanying notes 10-55.

7. See *infra* text accompanying notes 56-163.

viability, discussed in sections III⁸ and IV,⁹ defies an easy and positive response. Most simply put, the historical function of the public trust doctrine has been to provide a public property basis for resisting the exercise of private property rights in natural resources deemed contrary to the public interest. In recent decades, however, especially during the last ten years, modern trends in natural resources law increasingly have eroded traditional concepts of private property rights in natural resources and substituted new notions of sovereign power over those resources. These trends, reflected in a wide variety of legal contexts ranging from federal environmental protection statutes and new state resource allocation laws to evolving common-law principles of tort law, are currently weaving a new fabric for natural resources law that is more responsive to current social values and the physical characteristics of the resources. By continuing to resist a legal system that is otherwise being abandoned, the public trust doctrine obscures analysis and renders more difficult the important process of reworking natural resources law. Of even broader concern, the doctrine threatens to fuel a developing clash in liberal ideology between furthering individual rights of security and dignity, bound up in notions of private property protection, and supporting environmental protection and resource preservation goals, inevitably dependent on intrusive governmental programs designed to achieve longer-term collectivist goals.

I. THE ORIGINS OF THE PUBLIC TRUST DOCTRINE IN AMERICAN LAW

The origins of the public trust doctrine, much belabored and debated in other works,¹⁰ need not be repeated in detail here. It is sufficient for present purposes to mark out the path from the doctrine's initial development abroad to its current infusion into domestic law.

A. Roman and English Common Law

The notion of a public trust doctrine finds its earliest expression most clearly in the work of Justinian, whose celebrated compendium of principles of Roman law declared natural law communal rights in certain basic and omnipresent natural resources: By natural law, these things are common property of all: air, running water, the sea, and with it the shores

8. See *infra* text accompanying notes 164-367.

9. See *infra* text accompanying notes 368-476.

10. See 1 R. CLARK, *WATERS AND WATER RIGHTS* 179-202 (1967); Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C.D. L. REV. 185, 189-93 (1980); Sax, *supra* note 3, at 475-78; Stevens, *The Public Trust: A Sovereign's Ancient Prerogative Becomes the People's Environmental Right*, 14 U.C.D. L. REV. 195, 195-98 (1980); Comment, *The Public Trust Totem in Public Land Law: Ineffective—And Undesirable—Judicial Intervention*, 10 ECOLOGY L.Q. 455, 463-64 (1982); Comment, *supra* note 3, at 763-74; see also Coquillette, *Mosses from an Old Manse: Another Look at Some Historic Property Cases About the Environment*, 64 CORNELL L. REV. 761, 801-21 (1979). See generally Deveney, *Title, Jus Publicum, and the Public Trust: An Historical Analysis*, 1 SEA GRANT L.J. 13 (1976); Selvin, *The Public Trust Doctrine in American Law and Economic Policy, 1789-1920*, 1980 WIS. L. REV. 1403.

of the sea.¹¹ This declaration, likely reflecting less the true nature of public rights during the Roman Empire than Justinian's own idealization of a legal regime,¹² was in all events mimicked practically verbatim in the Spanish thirteenth-century code, *Las Siete Partidas*,¹³ as well as in the "Recopilacion de leyes de los Reinos de los Indies" promoted throughout the Spanish Empire,¹⁴ and eventually was reflected in the customs of most European nations in the Middle Ages.¹⁵

11. See THE INSTITUTES OF JUSTINIAN bk. 2, tit. 1, pts. 1-6, at 65 (J. Thomas trans. 1975). The notion that in earlier times people lived in total harmony—sharing abundant natural resources—is evident in the writings of many early writers, including Ovid, Hesiod, Horace, and Vergil. 1 B. MORE & W. BREWER, OVID'S METAMORPHOSES 397-99 (rev. ed. 1978). The expression "things common to all" is found in the works of the third-century jurist Marcian as well as in biblical descriptions of life in Eden. See Deveney, *supra* note 10, at 26-29.

12. Justinian intended *The Institutes* as an elementary textbook for first-year students and the *Digest* as a "patchwork" of juristic commentary, not necessarily internally consistent. See A. WATSON, THE MAKING OF THE CIVIL LAW 12, 25 (1981); see also Deveney, *supra* note 10, at 24-26 (discussing *The Institutes* and the *Digest*). Neither amounted to what today we consider binding precedent. Indeed, in practice, the Roman government reportedly did not shy from conveying private rights in coastal resources to promote commercial exploitation of the sources. See *id.* at 33-34 (almost all coastal resources granted outright or leased to privately held monopolies for development); see also Ker v. Couden, 223 U.S. 268, 276 (1912) ("Roman law is not like a deed or a modern code prepared *uno flatu*. History plays too large a part to make it safe to generalize from a simple passage in so easy a fashion."). For this reason, several commentators argue that no legal doctrine protecting public rights in natural resources, such as the public trust doctrine, existed during the Roman Empire. See, e.g., Deveney, *supra* note 10, at 17, 23-26; MacGrady, *The Navigability Concept in the Civil and Common Law: Historical Development, Current Importance, and Some Doctrines that Don't Hold Water*, 3 FLA. ST. U.L. REV. 511, 559 (1975). But see Comment, *supra* note 3, at 789 (arguing that Americans at least should be entitled to those environmental rights guaranteed Roman citizens).

13. *Las Siete Partidas*, pt. 3, tit. 28, laws 3, 4, 6. *Las Siete Partidas* was greatly influenced by prior compilations of Roman law. See B. DOBKINS, THE SPANISH ELEMENT IN TEXAS WATER LAW 74-75 (1959). Partida 3 was taken practically verbatim from Roman law. See *id.* at 76; J. VANCE, THE BACKGROUND OF HISPANIC-AMERICAN LAW—LEGAL SOURCES AND JURIDICAL LITERATURE OF SPAIN 98 (1943); see also Ker v. Couden, 223 U.S. 268, 275-76 (1912).

14. This compilation of preexisting Spanish law was enforceable in all of Spain's overseas territories, including the eighteen Spanish republics in South and Central America, as well as territories now included in the United States (such as parts of Texas, New Mexico, Arizona, California, Nevada, Utah, Oklahoma, Colorado, Kansas, and Wyoming). See *Jover Y. Costas v. Insular Gov't of Philippines*, 221 U.S. 623, 629 (1911) (construing *Las Siete Partidas* as Philippino law); E. VAN KLEFFENS, HISPANIC LAW UNTIL THE END OF THE MIDDLE AGES 27-28 (1968). Consequently, the precise import of certain provisions of *Las Siete Partidas* has not infrequently been at issue in American courts. See, e.g., *Summa Corp. v. California ex rel. State Lands Comm'n*, 104 S. Ct. 1751, 1757 (1984).

15. Professor Sax more recently has suggested that eleventh-century French law may offer the best historical precedent for the modern trust doctrine. See Sax, *supra* note 10, at 189 ("[T]he public highways and byways, running water and springs, meadows, pastures, forests, heaths and rocks . . . are not to be held by lords . . . nor are they to be maintained . . . in any other way than that their people may always be able to use them.").

The public trust found its way into our English common-law heritage through the writings of Bracton in the mid-thirteenth century.¹⁶ Borrowing from the Roman notion of resources "common to all" or "res communes,"¹⁷ Bracton also declared the shores of the sea "common to all" and inalienable.¹⁸ Here too, however, practice appears to have departed from pronouncement. More formal confirmation of the public's rights to valuable coastal resources occurred only when the Crown, seeking a means to increase the treasury, resurrected those rights to support its claim of prima facie ownership of the shorezone to the high water mark, notwithstanding prior royal grants of littoral lands to private parties.¹⁹ Thus, although in some sense English common law recognized public rights in the shorezone area, they were, at bottom, rights controlled by the sovereign.²⁰

(quoting M. BLOCH, *FRENCH RURAL HISTORY* 183 (1966)). The wide-ranging influence of *The Institutes* in European Law is described in A. WATSON, *supra* note 12, at 62-82.

16. See 2 H. BRACTON, *ON THE LAWS AND CUSTOMS OF ENGLAND* 39-40 (S. Thorne trans. 1968). The Magna Carta is often cited as even earlier support in England for public trust principles. See 4 R. CLARK, *supra* note 10, at 99-100; Rosen, *Public and Private Ownership Rights in Lands Under Navigable Waters: The Governmental/Proprietary Distinction*, 34 U. FLA. L. REV. 561, 565-67 (1982); Comment, *supra* note 10, at 765-68. The language of the Magna Carta suggests, however, that originally it had a much more limited purpose and the current interpretation is most likely the result of a much more generous reading by commentators such as Blackstone, later picked up on by the English courts. See *Gann v. Free Fishers*, 11 Eng. Rep. 1305 (H.L. 1865); Rosen, *supra*, at 565.

17. See 2 H. BRACTON, *supra* note 16, at 39-40; Coquillette, *supra* note 10, at 800-03.

18. See 2 H. BRACTON, *supra* note 16, at 39-40.

19. At the behest of Elizabeth I, who considered the private holdings in the English shoreline in the sixteenth century an impediment to English naval power, her lawyer, Thomas Digges, developed the theory that without proof of specific grant of the shorezone (which almost never was found in royal deeds) the Crown was the prima facie owner of the shore to the high water mark. See Digges, *Arguments proving the Queenes Majesties proprietye in the Sea Landes*, in S. MOORE, *HISTORY OF THE FORESHORE* 185-211 (3d ed. 1888). The theory met with substantial resistance from the propertied class, who resented what they perceived to be the Crown's blatant confiscation of private property. However, the Stuarts advocated Digges' thesis to enhance the royal purse, and in time the courts fell in line. Ironically, Charles I, who decided the first case formally adopting the prima facie theory, see *Attorney General v. Philpott*, in S. MOORE, *supra*, at 895-907, ultimately lost his head as a result. Among the causes specifically cited to support his beheading was the "'taking away of men's rights under colour of the King's title to land between high and low water marks.'" See *Article 26 of the Grand Remonstrance presented to Charles I on December 1, 1641*, in S. MOORE, *supra*, at 310. See generally S. MOORE, *supra*, at 258-317 (discussing reign of King Charles I); Deveney, *supra* note 10, at 41-49; Note, *A Tidelands Trust for Georgia*, 17 GA. L. REV. 851, 855-56 (1983).

20. The sovereign could then convey these resources to private hands. This is self-evident from the mere notion of prima facie ownership. Both Lord Chief Justice Hale's seminal treatise, see M. HALE, *DE JURE MARIS*, chs. 5-6, in S. MOORE, *supra* note 19, at 384-406, and the rulings of English courts confirm this view. See, e.g., *Attorney General v. Emerson*, 1891 A.C. 649, 649-51 (H.L.); see also *Blundell v. Catterall*, 106 Eng. Rep. 1190, 1199 (K.B. 1821) (rejecting claims based on Justinian's *Institutes* and Bracton's treatise because claims disagreed with common law of England); *Commonwealth v. Morgan*, 225 Va. 517, 522-23, 303 S.E.2d 899, 901 (1983) (English Crown authorized to grant private

B. *Introducing the Public Trust Doctrine into the United States*

The English common-law notion that the public retains certain inviolable rights to natural resources ultimately found its way into judicial opinions in the United States. Adopting the distinction first expressed in Lord Chief Justice Hale's treatise, nineteenth-century American jurists divided the interests in navigable waters into three categories: (1) *jus publicum*—the rights of the general public; (2) *jus regium*—the royal right to manage resources for public safety and welfare (akin to our modern police power); and (3) *jus privatum*—the private right of title.²¹ The dual sovereign nature of our federal system, however, added a new twist to the *jus publicum*. From the outset, the Supreme Court described the sovereign interest of the national government in terms differing from the state government's sovereign interest, even though it described the interests of both sovereigns in property law terms. The Court termed the federal sovereign's paramount interest over commerce in interstate navigable waters the "federal navigation servitude." In contrast, the Court described the state interest generally in terms of the state's "sovereign ownership" of the bed of certain navigable waters within each state's own borders. Apart from the precise labels the Court employed, the common interest of both sovereigns in those water resources was clear in the nineteenth century. Commerce was primarily waterborne; the rivers served as highways for pioneers and supplied power for industry. Accordingly, cities and towns invariably lined major waterways, and natural ports were a prerequisite to developing a major metropolitan area.²²

1. *Federal Navigation Servitude*

Federal insistence that navigable waterways were subject to special public rights and, therefore, national sovereign authority, was first formal-

title to submerged lands in Virginia during colonial times). At most, the King lacked authority to make such conveyances without Parliament's concurrence. *See* Deveney, *supra* note 10, at 49-50; Rosen, *supra* note 16, at 569 n.50; Sax, *supra* note 3, at 476; *see also* Langdon v. Mayor, 93 N.Y. 129, 155 (1883). Notably, only the properties of the "ancient desmesne" were historically inalienable under English law. These lands constituted the "original endowment of the kingship" so designated at the time "settlement of the Conquest was completed and was registered in the Domesday Book." 1 F. POLLOCK & W. MAITLAND, *HISTORY OF ENGLISH LAW* 383-84 (2d rev. ed. 1968). As "permanently annexed to the kingly office," their dissipation into private hands was inappropriate. *Id.* Of course, this restriction on sovereign alienation bore no relation to the natural resource characteristics of the properties, but rather to their political significance.

21. *See* 2 R. CLARK, *supra* note 10, at 190-202; Deveney, *supra* note 10, at 44-46; Selvin, *supra* note 10, at 1403-04 & n.4. On repeated occasions, the Supreme Court invoked Lord Chief Justice Hale's distinctions. *See, e.g.,* Shively v. Bowlby, 152 U.S. 1, 11-14 (1894); Barney v. Keokuk, 94 U.S. 324, 338 (1876); Pollard's Lessee v. Hagan, 44 U.S. (3 How.) 212, 220-24 (1845); Martin v. Lessee of Waddell, 41 U.S. (16 Pet.) 367, 411 (1842).

22. *See* Fly, *The Role of the Federal Government in the Conservation and Utilization of Water Resources*, 86 U. PA. L. REV. 274, 274-76 (1938).

ized when states attempted to grant exclusive franchises to navigate their waterways. Indeed, it was this type of arrangement between New York and Robert Fulton (of steamboat fame) and Ambassador Livingston that led Chief Justice Marshall to declare in *Gibbons v. Ogden*²³ that commerce in navigable waterways was of such great importance that maintenance and availability of the waterways must be within the exclusive control of the federal government. This ruling spawned a host of judicial decisions concerning the scope and significance of this special federal power,²⁴ called the federal navigation servitude. These decisions occurred as the national government sought to expand the internal waterway system and in so doing often interfered with the specific plans of states and private parties.²⁵

2. State Ownership of Beds of Navigable Waters

At the state law level, the public trust doctrine took on a different character, suggesting not only that the state possessed special powers over these water resources, but also that it owed certain enforceable duties to the public as well. The Supreme Court ultimately described the nature of this state authority in 1842 in *Martin v. Lessee of Waddell*²⁶ as state ownership of the beds of navigable waters in their sovereign capacity.²⁷

The origins of the modern public trust doctrine thesis lie in the notion of "sovereign capacity" ownership. In particular, lurking in the background of those early judicial rulings was the suggestion that state power to alienate the resource or otherwise deny general public access is sharply restricted.²⁸ This suggestion was critical to Sax' later thesis and

23. 22 U.S. (9 Wheat.) 1 (1824). A previous circuit opinion written by Chief Justice Marshall in fact foreshadowed the ruling. See *Wilson v. United States*, 30 F. Cas. 239, 245 (C.C.D. Va. 1820) (No. 17,846).

24. See, e.g., *Louisville Bridge Co. v. United States*, 242 U.S. 409, 424 (1917); *United States v. Bellingham Bay Boom Co.*, 176 U.S. 211, 215-16 (1900); *Gilman v. Philadelphia*, 70 U.S. (3 Wall.) 713, 724-25 (1866); *Pennsylvania v. Wheeling & Belmont Bridge Co.*, 54 U.S. (13 How.) 518, 577-78 (1851).

25. Fly, *supra* note 22, at 278-81.

26. 41 U.S. (16 Pet.) 367 (1842).

27. See *id.* at 410. This case concerned a dispute between two private parties over their right to fish for oysters in Raritan Bay. The plaintiff claimed the right through mesnes conveyances from the Crown, and the defendant claimed the right pursuant to a state grant. *Id.* at 380-81.

28. The New Jersey Supreme Court decision in *Arnold v. Mundy*, 6 N.J.L. 1 (1821), cited by the Court in *Martin v. Lessee of Waddell*, 41 U.S. (16 Pet.) at 417, is the earliest public trust decision to suggest that the public possesses certain water resources access rights that cannot be precluded by legislative alienation. *Arnold* also involved a dispute over the use of an oyster bed in Raritan Bay. The state court based its decision—that such legislative authority “never could be borne by a free people,” see 6 N.J.L. at 13—on the “law of nature,” the “civil law,” and the “common law of England,” see *id.* at 11-12. Although the United States Supreme Court followed *Arnold* in *Martin v. Lessee of Waddell*, and subsequently relied on it in *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 455-56 (1892), which is discussed *infra* at notes 30-44, the New Jersey court chose to abandon *Arnold's*

found its roots in judicial descriptions of sovereign ownership of waterways as akin to the powers and duties of a trustee.²⁹

3. *The Illinois Central Railroad Decision*

In *Illinois Central Railroad v. Illinois*³⁰ the Supreme Court squarely addressed the issue of the meaning of state sovereign ownership. The legal issue raised in that case was fairly narrow—whether Illinois could, by legislative enactment, repeal an earlier statute conveying huge portions of the bed of Lake Michigan to Illinois Central without offending the federal Constitution.³¹ The Supreme Court's reasoning in upholding the state legislature's subsequent action is not evident. The Court could have relied easily on the theory that the initial enactment was devoid of legitimate public purpose, especially given that the Court could have done so merely by deferring to the subsequent legislature's considered judgment.³² The four-justice majority instead expounded at length on the special nature of sovereign ownership of navigable waters to support its ruling that the state grant had been revocable.³³ The thrust of the Court's far-reaching

rationale and effectively overruled it. See *Gough v. Bell*, 22 N.J.L. 441, 458-60, *aff'd*, 23 N.J.L. 624 (1852). See generally *Rosen*, *supra* note 16, at 572-74. Moreover, the historical accuracy of research the *Arnold* court relied upon in its decision is in doubt. See *MacGrady*, *supra* note 12, at 590-91.

29. Indeed, in dicta, the Supreme Court in *Waddell* described the sovereign's dominion over submerged lands as "in trust" and as a "public trust." See 41 U.S. (16 Pet.) at 411.

30. 146 U.S. 387 (1892). Two members of the Court did not participate in the case. See *id.* at 476 (Fuller, C.J., & Blatchford, J.). Three justices dissented. See *id.* at 464 (Shiras, Gray & Brown, JJ., dissenting).

31. See *id.* at 449, 452.

32. At the time *Illinois Central* was decided, the Court strictly applied a constitutional requirement of "public purpose" to state and local laws, holding invalid laws that benefited particular groups within society. See *Loan Ass'n v. Topeka*, 87 U.S. 655, 664 (1874) (governmental expenditure favoring small class of individuals tantamount to "robbery"). Soon afterward, the Court overruled this line of precedent and adopted a more deferential view of the public purpose requirement. See *Fallbrook Irrigation Dist. v. Bradley*, 164 U.S. 112, 160, 164 (1896); see also *Milheim v. Moffat Tunnel Dist.*, 262 U.S. 710, 723 (1923) (upholding assessment on abutting landowners the costs of building tunnel for railroad).

33. The Court took pains to stress the special "trust" nature of the state's title: [State title to the lands under navigable waters] is a title different in character from that which the State holds lands intended for sale. . . . It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties. . . . [Grants that] do not substantially impair the public interest in the lands and waters remaining [are valid] A grant of all the lands under the navigable waters of a State has never been adjudged to be within the legislative power; and any attempted grant of the kind would be held, if not absolutely void on its face, as subject to revocation. The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them . . . than it can abdicate its police powers in the administration of government and the preservation of the peace

opinion, though certainly unnecessary for the result, is unmistakable. According to the Court, at some level a state legislature is powerless to convey into private hands a natural resource as important as Chicago's harbor.³⁴ The decision, however, raises more questions than it answers.

First, the Court assumed that without title the state would be powerless to prevent use of the harbor, which the state later determined was contrary to the public interest.³⁵ But the lack of power hardly seems plausible, given that state police power would regulate railroad uses of the resource and the federal navigation servitude would still provide for both maintenance of the navigability of the resource and public access.³⁶ In all events, certainly no legal bar would prevent the state from exercising its eminent domain authority to repurchase the property.

The decision raises a second, even more perplexing issue. It is far from clear what source of law the Court was drawing upon to reach its result. Language in the opinion suggests that the Court was announcing a rule based on federal law universally applicable to all state legislatures.³⁷

The harbor of Chicago is of immense value to the people of the State of Illinois . . . [T]he idea that its legislature can deprive the State of control over its bed and waters and place the same in the hands of a private corporation created for a different purpose, one limited to transportation of passengers and freight between distant points and the city, is a proposition that cannot be defended. . . .

. . . .

Any grant of the kind is necessarily revocable The position advanced by the railroad company . . . would place every harbor in the country at the mercy of a majority of the legislature of the State in which the harbor is situated.

146 U.S. at 452-55.

34. The significance the Court places on the doctrine is reminiscent of the common-law notion that certain lands are so intrinsically tied to the "Kingly office" that their dissipation would threaten the very existence of the sovereign. These common-law lands, referred to as the ancient *desmesne*, contrasted with those more temporary properties gained through conquests. 1 F. POLLOCK & W. MAITLAND, *supra* note 20, at 383-84; *see supra* note 15.

35. The same judicial assumption that state title was necessary to support state sovereign authority over a natural resource is evident in the Court's decisions that rejected the "English Rule" and extended state sovereign ownership to the beds of nontidal navigable waters. *See Barney v. Keokuk*, 94 U.S. 324, 337-38 (1876); *Propeller Genesee Chief v. Fitzhugh*, 53 U.S. (12 How.) 443, 457-58 (1851); *Deveney*, *supra* note 10, at 54; *Rosen*, *supra* note 16, at 575. The test of navigability for title purposes is a matter of federal law, *see United States v. Oregon*, 295 U.S. 1, 14 (1935), and looks to whether the waterway's natural and ordinary condition was useful or susceptible to use in interstate commerce when the state was admitted to the Union, *id.*; *see also Utah v. United States*, 403 U.S. 9, 9-10 (1971).

36. The dissenters stressed the state police power. *See Illinois Central*, 446 U.S. at 466-67 (Shiras, J., dissenting). The majority not only conceded the federal navigation servitude in its opinion, *see id.* at 452, but stated that it was expressly provided for in the original agreement between the State of Illinois and *Illinois Central*, *see id.* at 448-50.

37. No limiting language appears in the Court's opinion to suggest that its decision was limited to Illinois law. The Court repeatedly referred to the power of a "state" in the generic sense. The majority most likely assumed its decision applied to all states; this is most clearly evident in its assertion that should the railroad's position prevail in this case, it "would place every harbor in the country at the mercy of a majority of the legislature of the State in which the harbor is situated." *See id.* at 455.

Although the tone of the opinion nearly strikes constitutional chords,³⁸ the Court thirty years later described the *Illinois Central* decision as merely resting on a "matter of Illinois law."³⁹

Taking the Court's subsequent characterization as correct, as we must, we then must fathom the basis for the Court's declaration of such a novel rule of state law. The Court did not cite any relevant precedent in Illinois law to support the decision. The Court merely referred vaguely to the use of sovereign trust language by state courts in their decisions discussing state ownership of the submerged beds.⁴⁰ This in turn is followed only by the Supreme Court's naked assertion that the trust arrangement is inalienable.⁴¹

The *Illinois Central* decision remains today the "lodestar"⁴² guiding the modern public trust doctrine. State courts have repeatedly turned to it in the late nineteenth and early twentieth centuries to justify rejecting or at least carefully scrutinizing shortsighted or even corrupt legislative attempts to convey into private hands critical coastal or inland waterway resources.⁴³ And still today courts rely on the *Illinois Central* Court's reasoning to support their rulings.⁴⁴

4. Expansion of the Trust Concepts

The notion of sovereign ownership in trust originated but did not remain confined to navigable waters and their beds. Similar language cropped up in judicial opinions describing the source of special governmental authority over wildlife⁴⁵ and public lands.⁴⁶ In the case of public lands, the Supreme Court went so far as to suggest that trust duties included the responsibility to ensure that the resources were "not wasted."⁴⁷ Perhaps

38. See *id.* at 456-57.

39. See *Appleby v. City of New York*, 271 U.S. 364, 395 (1926). In *Appleby* the Court reversed the ruling of the New York Court of Appeals and held that under state law the legislature could grant land under tidal water free of the *jus publicum* and had done so in this case. See *id.* at 383-84. Accordingly, the Court held that if the state wanted to reassert its sovereign rights, it would first have to buy them back. See *id.* at 399.

40. See 146 U.S. at 455.

41. See *id.*

42. Sax, *supra* note 3, at 489.

43. See generally *id.* For a discussion of the Florida courts' adoption of *Illinois Central*, see F. MALONEY, S. PLAGER & F. BALDWIN, *WATER LAW AND ADMINISTRATION—THE FLORIDA EXPERIENCE* 355-57 (1968).

44. See, e.g., *State v. Superior Court*, 29 Cal. 3d 210, 227, 625 P.2d 239, 249, 172 Cal. Rptr. 696, 706, *cert. denied*, 454 U.S. 865 (1981).

45. See *Geer v. Connecticut*, 161 U.S. 519, 534 (1896), *overruled*, *Hughes v. Oklahoma*, 441 U.S. 322 (1979); see also *La Coste v. Department of Conservation*, 263 U.S. 545, 549 (1924).

46. See, e.g., *Emigrant Co. v. County of Wright*, 97 U.S. 339, 342 (1877); *Pollard v. Hagan*, 44 U.S. (3 How.) 212, 224 (1845); see also Montgomery, *The Public Trust Doctrine in Public Land Law: Its Application in the Judicial Review of Land Classification Decisions*, 8 WILLAMETTE L.J. 135, 146-47, 151-70 (1972).

47. See *Knight v. United States Land Ass'n*, 142 U.S. 161, 181 (1891); see also Cam-

the most interesting early expansion of the trust concept, however, was its application to city streets.⁴⁸ Many courts upheld municipal authority to allow railroads use of the streets and other public trust property.⁴⁹ These courts often held that the trust doctrine exempted the city and its commercial licensees from liability for harm caused to adjoining property owners by transit activities.⁵⁰ Ultimately many state courts expanded this application of the trust to promote the use of city streets by elevated railroads.⁵¹ Eventually the subsurface for the growing hidden infrastructure of the city was represented in the form of subways, sewer pipes, gas lines, and electric cables.⁵² California courts similarly utilized the trust concept to promote economic development, by ruling that growing cities in need of water, such as Los Angeles,⁵³ had broad sovereign rights to waters within their original land.⁵⁴ Thus, the traditional trust doctrine concept in the United States became as much a legal basis for economic expansion as for resource protection.⁵⁵

II. THE PUBLIC TRUST THESIS IN THE COURTS

A. *The Public Trust Thesis*

Promoters of the public trust doctrine, most prominently Professor Joseph Sax, turned primarily to *Illinois Central* and its progeny to develop

field v. United States, 167 U.S. 518, 524 (1897); United States v. Beebe, 127 U.S. 338, 342 (1888).

48. See Selvin, *supra* note 10, at 1417-18.

49. See, e.g., Chapman v. Albany & Schenectady R.R., 10 Barb. 360, 363 (N.Y. App. Div. 1851); Drake v. Hudson River R.R., 7 Barb. 508, 547 (N.Y. App. Div. 1849).

50. See, e.g., People v. Kerr, 37 Barb. 357, 394-95 (N.Y. App. Div. 1862); Brooklyn City & Newton R.R. v. Coney Island & Brooklyn R.R., 35 Barb. 364, 368 (N.Y. App. Div. 1861).

51. See, e.g., Griffin v. Shreveport & Ark. R.R., 41 La. Ann. 808, 809-10, 6 So. 624, 624-26 (1889); Costigan v. Pennsylvania R.R. & N.Y. Cent. & Hudson River R.R., 54 N.J.L. 233, 237-43, 23 A. 810, 811-13 (1892); Jones v. Erie & Wyo. R.R., 151 Pa. 30, 45-47, 25 A. 134, 136-37 (1892).

52. See Selvin, *supra* note 10, at 1426-28. Although courts generally interpret the sovereign trust authority to exempt the municipality from liability for harm caused when city streets are used for ordinary street purposes, they have split on whether the trust immunity extends to subways. Compare *Sears v. Crocker*, 184 Mass. 586, 589, 69 N.E. 327, 328 (1904) (no compensation) with *In re Board of Rapid Transit*, 197 N.Y. 81, 97-98, 90 N.E. 456, 460-61 (1909). Most courts have held that trust immunity does not extend to elevated railroads. See *Muhlker v. New York & Harlem R.R.*, 197 U.S. 544, 570-71 (1904); *Lohr v. Metropolitan Elevated Ry.*, 104 N.Y. 268, 288, 10 N.E. 528, 531 (1887); *Story v. New York Elevated R.R.*, 90 N.Y. 122, 178-79 (1882).

53. In light of the California Supreme Court's most recent application of the public trust doctrine to limit potentially the water rights of Los Angeles, see *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 440, 658 P.2d 709, 723, 189 Cal. Rptr. 346, 360, cert. denied, 464 U.S. 977 (1983), this prior history takes on an especially ironic tone.

54. See *City of Los Angeles v. Pomeroy*, 124 Cal. 597, 646, 57 P. 585, 601 (1899) (pueblo right of city expands with needs of its inhabitants). Samuel Wiel has characterized the California court ruling as "state socialism in water." See Wiel, *Political Water Rights*, 10 CALIF. L. REV. 111, 111 (1922).

55. Selvin, *supra* note 10, at 1422-37.

the modern public trust doctrine thesis.⁵⁶ Professor Sax thought the doctrine possessed or at least potentially possessed three characteristics essential for an effective legal basis for environmental protection: (1) the legal right had to be vested in the public; (2) the right had to be enforceable against the government; and (3) the substance of the right had to be harmonious with environmental concerns.⁵⁷ In support of this proposition, his article described at great length the operation of the doctrine in several states over the last century.⁵⁸ The descriptions emphasized how courts had invoked the doctrine in certain circumstances to question the validity of executive agency action that threatened trust resources and, in particular, public access to those resources.⁵⁹ Judicial techniques included narrowly reading both legislative delegations of authority over trust resources to executive agencies⁶⁰ and governmental attempts to convey trust resources to private parties,⁶¹ as well as prohibiting outright certain governmental measures that adversely affected the resource.⁶²

The precise legal basis for the doctrine's application, however, remained fairly vague. The doctrine is squarely rooted in property law,⁶³ yet Professor Sax, for instance, rejected the property rationale as too inflexible.⁶⁴ Similarly, despite the substantive overtone of past judicial opinions applying the doctrine⁶⁵ (and arguably of portions of Sax' own 1970 article⁶⁶) Sax chose to describe the doctrine as not substantive. According

56. See Sax, *supra* note 3, at 489.

57. See *id.* at 474.

58. See *id.* at 491-531.

59. See, e.g., *id.* at 494, 502.

60. See, e.g., *id.* at 502, 504-05, 523, 525-26, 531, 558-59.

61. See *id.* at 492-502, 527-28.

62. See *id.* at 485-89.

63. The trust doctrine originated with the notion of sovereign ownership of certain resources in trust for the sovereign's citizens. See *supra* text accompanying notes 11-29. Controversies over the doctrine historically have concerned ownership boundaries and the existence of public access or easements. See *supra* notes 26-29, 40-43 and accompanying text; *infra* notes 138-43 and accompanying text. The *Illinois Central* opinion is replete with references to property law concepts. See 146 U.S. at 452-54.

64. See Sax, *supra* note 3, at 478-83. Professor Sax rejected the property rationale, although he acknowledged its common use by the courts, because it could prohibit the government from reallocating trust resources to accommodate changing public needs. See *id.* at 482; see also Deveney, *supra* note 10, at 60. Sax has been criticized for this tactic by at least one commentator. Professor Coquillette argues that the trust doctrine would rest more firmly on a property law basis, because that is its historical basis, and rigid prohibitions are not necessarily implicated by property law. See Coquillette, *supra* note 10, at 810-14.

65. The Supreme Court's *Illinois Central* ruling is a good example. See *supra* text accompanying notes 30-41.

66. Sax clearly suggests in several places that the doctrine has significant substantive overtones. At one point, he summarizes the doctrine as disallowing grants of particularly great "amplitude" to private parties. See Sax, *supra* note 3, at 488-89. At another, Sax argues that judicial inquiry and standards to "minimize" harm to the natural resource must be adequate. See *id.* at 545. Finally, Sax outlines four guidelines that trigger the

to Sax' 1970 article the trust doctrine "has no life of its own and no intrinsic standards"⁶⁷ and does not represent "a substantive set of standards."⁶⁸ Instead, Sax characterized the doctrine as just a "technique"⁶⁹ or "name"⁷⁰ courts used to "mend perceived imperfections in the legislative and administrative process"⁷¹ or the "democratic process" generally.⁷²

More recently, however, Professor Sax described the doctrine's operation in terms of property rights and did not shy away from attaching substantive standards to judicial application of the doctrine.⁷³ The "central idea" of the public trust doctrine, according to Sax, has become "preventing the destabilizing disappointment of expectations held in common but without formal recognition such as title" and its "function" is to "protect such public expectations against destabilizing changes" as conventional private property is protected.⁷⁴

B. Public Trust Litigation Since 1970

Since 1970 the public trust doctrine indisputably has had a major impact on litigation brought by parties on behalf of natural resource protection, an impact more than sufficient to call for a close accounting of its rise and an evaluation of its continuing vitality. Numerous parties have relied on modern public trust theories to support their litigation objectives and in turn the courts have adopted those theories. In addition, in many of the states in which public trust precedent was absent or difficult to construct, a spate of law review commentators, most following up on the Sax thesis, have argued for application of the trust doctrine in particular states.⁷⁵ Other law review progeny have focused not on particular

concern of the trust doctrine that are totally aimed at the substance of the controversy. They include: (1) whether the property has been conveyed at less than market value when no obvious reason for the subsidy exists; (2) whether the government has granted to a private interest the authority to make resource allocation decisions that may subordinate public resource uses to private interests; (3) whether an attempt has been made to reallocate diffuse public uses to private uses or public uses of less breadth; and (4) whether the trust resource is being used for a natural purpose, that is, a purpose consistent with the resource's physical characteristics and natural state in the environment. *Id.* at 562-63.

67. See Sax, *supra* note 3, at 521.

68. See *id.* at 509.

69. See *id.*

70. See *id.* at 521.

71. See *id.* at 509.

72. See *id.* at 521.

73. See Sax, *supra* note 10, at 192-93.

74. See *id.* at 188-89 (footnotes omitted).

75. See, e.g., Jatte, *The Public Trust Doctrine is Alive and Kicking in New Jersey Tidalwaters: Neptune City v. Avon-by-the-Sea, A Case of Happy Atavism*, 14 NAT. RESOURCES J. 309 (1974); Livingston, *Public Access to Virginia's Tidelands: A Framework for Analysis of Implied Dedications and Public Prescriptive Rights*, 24 WM. & MARY L. REV. 669 (1982-1983); Olson, *The Public Trust Doctrine: Procedural and Substantive Limitations on Governmental Reallocation of Natural Resources in Michigan*, 1975 DET. C.L. REV. 161; Wyche, *Tidelands and the Public Trust: An Application for South Carolina*, 7 ECOLOGY L.Q. 137 (1978); Note, *The Public Trust*

states, but on furthering specific resource protection or public access goals.⁷⁶ All of this commentary has further increased the doctrine's impact in litigation. Over the last fifteen years in half of the states, approximately one hundred cases have been reported involving the public trust doctrine,⁷⁷ many of which refer explicitly to Professor Sax' article.

in *Massachusetts Land Law*, 11 B.C. ENVTL. AFF. L. REV. 839 (1984); Comment, *The Pennsylvania Public Trust Doctrine: Its Use as a Restraint on Government*, 13 DUQ. L. REV. 551 (1975); Comment, *California Beach Access: The Mexican Law and the Public Trust*, 2 ECOLOGY L.Q. 571 (1972); Note, *supra* note 19; Comment, *The Public Trust Doctrine as a Basis for Environmental Litigation in Louisiana*, 27 LOY. L. REV. 469 (1981); Note, *California's Tidelands Trust for Modifiable Public Purposes*, 6 LOY. L.A.L. REV. 485 (1973); Comment, *The Mississippi Public Trust Doctrine: Public and Private Rights in the Coastal Zone*, 46 MISS. L.J. 84 (1975); Comment, *"Public Trust" as a Constitutional Provision in Montana*, 33 MONT. L. REV. 175 (1975); Note, *State Citizen Rights Respecting Greatwater Resource Allocation: From Rome to New Jersey*, 25 RUTGERS L. REV. 571 (1971); Comment, *The Emergence of the Public Trust as a Public Right to Environmental Preservation in South Dakota*, 29 S.D.L. REV. 496 (1984); Comment, *The Public Trust Doctrine: A New Approach to Environmentalism*, 81 W. VA. L. REV. 455 (1979).

76. See, e.g., Ciriacy-Wantrup & Bishop, *"Common Property" as a Concept in Natural Resource Property*, 15 NAT. RESOURCES J. 713 (1975); Dunning, *The Significance of California's Public Trust Easement for California Water Rights Law*, 14 U.C.D. L. REV. 357 (1980); Fellig, *Pursuit of the Public Trust: Beach Access in New Jersey from Neptune v. Avon to Matthews v. BHIA*, 10 COLUM. J. ENVTL. L. 35 (1985); Johnson, *Public Trust Protection for Stream Flows and Lake Levels*, 14 U.C.D. L. REV. 233 (1980); Nanda & Ris, *Public Trust Doctrine: A Viable Approach to International Environmental Protection*, 5 ECOLOGY L.Q. 291 (1976); Schoenbaum, *Public Rights and Coastal Zone Management*, 51 N.C.L. REV. 1 (1972); Weiss, *The Planetary Trust: Conservation and Intergenerational Equity*, 11 ECOLOGY L.Q. 495 (1984); Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C.D. L. REV. 269 (1980); Yannacone, *Agricultural Lands, Fertile Soils, Popular Sovereignty, the Trust Doctrine, Environmental Impact Assessment, and the Natural Law*, 51 N.D.L. REV. 616 (1975); Note, *Proprietary Duties of the Federal Government Under the Public Land Trust*, 75 MICH. L. REV. 586 (1977); Comment, *Public Trust Doctrine Expansion & Integration: A Proposed Balancing Test*, 23 SANTA CLARA L. REV. 211 (1983) [hereinafter cited as Comment, *Expansion & Integration*]; Comment, *Public Beach Access Exactions: Extending the Public Trust Doctrine to Vindicate Public Rights*, 23 UCLA L. REV. 1049 (1981). For an interesting twist in the public trust concept in a non-natural resource context, see Comment, *Protecting the Public Interest in Art*, 91 YALE L.J. 121 (1981) [hereinafter cited as Comment, *Public Interest in Art*].

77. A listing by state of just some of the more recent or important public trust doctrine decisions is impressive. *Alaska*: State Dep't of Nat. Resources v. City of Haines, 627 P.2d 1047 (Alaska 1981); *California*: Amigos de Bolsa Chica, Inc. v. Signal Properties, Inc., 190 Cal. Rptr. 798 (Sup. Ct. 1983) (opinion omitted from 142 Cal. App. 3d 166); National Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 658 P.2d 709, 189 Cal. Rptr. 346, *cert. denied*, 464 U.S. 977 (1983); State v. Superior Court, 29 Cal. 3d 240, 625 P.2d 256, 172 Cal. Rptr. 713, *cert. denied*, 454 U.S. 865 (1981); State v. Superior Court, 29 Cal. 3d 210, 625 P.2d 239, 172 Cal. Rptr. 696, *cert. denied*, 454 U.S. 865 (1981); *Colorado*: People v. Emmert, 198 Colo. 137, 597 P.2d 1025 (1979); *District of Columbia*: Washington Metropolitan Area Transit Auth. v. One Parcel of Land, 514 F.2d 1350 (D.C. Cir. 1975). *But see* District of Columbia v. Air Fla. Inc., 750 F.2d 1077, 1085-86 (D.C. Cir. 1984) (questioning whether public trust doctrine applies in District of Columbia). *Georgia*: State v. Ashmore, 236 Ga. 401, 224 S.E.2d 334, *cert. denied*, 429 U.S. 830 (1976); *Florida*: Skipper v. Phipps, 483 F. Supp. 1213 (N.D. Fla. 1980); *Hawaii*: Robinson v. Ariyoshi, 65 Hawaii 641, 658 P.2d 287 (1982); State v. Zimring, 58 Hawaii 106, 566 P.2d 725 (1977); *Idaho*: Kootenai Env'tl. Alliance, Inc. v. Panhandle Yacht Club, Inc.,

1. Parties Invoking the Trust Doctrine

The cases since 1970 fall into three basic categories: (1) private citizens suing the government for allegedly violating the doctrine;⁷⁸ (2) private

105 Idaho 622, 671 P.2d 1085 (1983); *State ex rel. Haman v. Fox*, 100 Idaho 140, 594 P.2d 1093 (1979); *Illinois*: *People ex rel. Scott v. Chicago Park Dist.*, 66 Ill. 2d 65, 360 N.E.2d 773 (1976); *Paepcke v. Public Bldg. Comm'n*, 46 Ill. 2d 330, 263 N.E.2d 11 (1970); *Wade v. Kramer*, 121 Ill. App. 3d 377, 459 N.E.2d 1025 (1984); *Mamolella v. First Bank*, 97 Ill. App. 3d 579, 423 N.E.2d 204 (1981); *Louisiana*: *Save Ourselves, Inc. v. Louisiana Envtl. Control Comm'n*, 452 So. 2d 1152 (La. 1984); *Maine*: *James v. Inhabitants of West Bath*, 437 A.2d 863 (Me. 1981); *Opinion of the Justices*, 437 A.2d 597 (Me. 1981); *Massachusetts*: *Opinions of the Justices*, 383 Mass. 895, 424 N.E.2d 1092 (1981); *Boston Waterfront Dev. Corp. v. Commonwealth*, 378 Mass. 629, 393 N.E.2d 356 (1979); *Michigan*: *Bott v. Comm'n of Nat. Resources*, 415 Mich. 45, 327 N.W.2d 838 (1982); *Superior Public Rights, Inc. v. State Dep't of Nat. Resources*, 80 Mich. App. 72, 263 N.W.2d 290 (1977); *Montana*: *Montana Coalition for Stream Access, Inc. v. Hildreth*, 684 P.2d 1088 (Mont. 1984); *Montana Coalition for Stream Access, Inc. v. Curran*, 682 P.2d 163 (Mont. 1984); *Nevada*: *State v. Bunkowski*, 88 Nev. 623, 503 P.2d 1231 (1972); *New Hampshire*: *Appeal of Comm. to Save the Upper Androscoggin v. New Hampshire Water Resources Bd.*, 466 A.2d 1308 (N.H. 1983); *New Jersey*: *Matthews v. Bay Head Improvement Ass'n*, 95 N.J. 306, 471 A.2d 355, *cert. denied*, 105 S. Ct. 93 (1984); *City of Newark v. Natural Resource Council*, 82 N.J. 530, 414 A.2d 1304 (1980); *Borough of Neptune City v. Borough of Avon-by-the-Sea*, 61 N.J. 296, 294 A.2d 47 (1972); *New York*: *Evans v. City of Johnstown*, 96 Misc. 2d 755, 410 N.Y.S.2d 199 (Sup. Ct. 1978); *North Carolina*: *State v. Forehand*, 367 N.C. 148, 312 S.E.2d 247 (1984); *North Dakota*: *North Dakota State Water Comm'n v. Board of Managers*, 332 N.W.2d 254 (N.D. 1983); *United Plainsmen Ass'n v. North Dakota State Water Conservation Comm'n*, 247 N.W.2d 457 (N.D. 1976); *Ohio*: *Thomas v. Sanders*, 65 Ohio App. 2d 5, 413 N.E.2d 1224 (1979); *State ex rel. Brown v. Newport Concrete Co.*, 44 Ohio App. 2d 121, 336 N.E.2d 453 (1975); *Oregon*: *Morse v. Oregon Div. of State Lands*, 285 Or. 197, 590 P.2d 709 (1979); *Brusco Towboat Co. v. State*, 30 Or. App. 509, 567 P.2d 1037 (1977); *Pennsylvania*: *Warren Sand & Gravel Co. v. Commonwealth Dep't of Envtl. Resources*, 20 Pa. Commw. 186, 341 A.2d 556 (1975); *Payne v. Kassab*, 11 Pa. Commw. 14, 312 A.2d 86 (1973); *Texas*: *Lower Colo. River Auth. v. Texas Dep't of Water Resources*, 689 S.W.2d 873 (Tex. 1984); *Wisconsin*: *Wisconsin's Envtl. Decade, Inc. v. Wisconsin Dep't of Nat. Resources*, 115 Wis. 2d 381, 340 N.W.2d 722 (1983); *State Public Intervenor v. State Dep't of Nat. Resources*, 115 Wis. 2d 28, 339 N.W.2d 324 (1983); *State v. Village of Lake Delton*, 93 Wis. 2d 78, 286 N.W.2d 622 (1979); *see also* *Sierra Club v. Department of the Interior*, 398 F.Supp. 284 (N.D. Cal. 1975); *Sierra Club v. Department of the Interior*, 376 F. Supp. 90 (N.D. Cal. 1974).

In addition to case law, the modern public trust thesis has spawned legislation in Michigan. *See* Mich. Comp. Laws § 691.1202 (1979). *See generally* Slone, *The Michigan Environmental Protection Act: Bringing Citizen-Initiated Environmental Suits into the 1980's*, 12 *ECOLOGY L.Q.* 271 (1985). It has also likely influenced the adoption of trust language in several state constitutions. *See, e.g.*, PA. CONST. art. 1, § 27; *see also* MASS. CONST. amend. XLIX; R.I. CONST. amend. XXXVII, § 1.

78. *See, e.g.*, *City of Berkeley v. Superior Court*, 26 Cal. 3d 515, 519-20, 606 P.2d 362, 363-64, 162 Cal. Rptr. 327, 328-29, *cert. denied*, 449 U.S. 840 (1980); *Paepcke v. Public Bldg. Comm'n*, 46 Ill. 2d 330, 331-32, 263 N.E.2d 11, 13 (1970); *Superior Public Rights, Inc. v. State Dep't of Nat. Resources*, 80 Mich. App. 72, 75-76, 263 N.W.2d 290, 292 (1977); *Gewirtz v. City of Long Beach*, 330 N.Y.S.2d 495, 501-03 (Sup. Ct. 1972); *United Plainsmen Ass'n v. North Dakota State Water Conservation Comm'n*, 247 N.W.2d 457, 458-59 (N.D. 1976); *Payne v. Kassab*, 11 Pa. Commw. 14, 16-17, 312 A.2d 86, 88 (1973).

citizens suing other private parties for allegedly violating the doctrine;⁷⁹ and (3) the government suing private parties for allegedly violating the doctrine.⁸⁰ The doctrine's early promoters were concerned primarily with promoting the first category of cases, with some related discussion of the need for promoting the second. For this reason, the potential ability of the public trust doctrine to provide private citizens with the needed legal interest to confer standing was of foremost concern. The experience of the last fifteen years reveals that here the doctrine succeeded; courts generally have held that groups of private citizens can maintain actions against governmental and private parties to vindicate public trust doctrine interests.⁸¹

The third area of public trust litigation, involving governmental initiatives based on public trust doctrine authority, however, has been one of the most important areas of development for the doctrine, if not the most important.⁸² Governmental enforcement is the principal means by which environmental and natural resource protection standards are enforced. The government's ability to enforce these standards is necessarily tempered by the deference due private property rights in the resources. To the extent that the public trust doctrine suggests that private property rights in trust resources are limited, however, the doctrine effectively advances governmental authority in the resource protection area. Undoubtedly for this reason, one of the major shifts in trust doctrine litigation over the last fifteen years has been the increase in cases brought by the government to enforce the doctrine or, alternatively, brought initially by a private party challenging the validity of a governmental enforcement action based on the sovereign's trust power.⁸³

79. See, e.g., *Marks v. Whitney*, 6 Cal. 3d 251, 256-57, 491 P.2d 374, 377-78, 98 Cal. Rptr. 790, 793-94 (1971) (en banc); *Kootenai Envtl. Alliance, Inc. v. Panhandle Yacht Club, Inc.*, 105 Idaho 622, 624, 671 P.2d 1085, 1087 (1983); *Montana Coalition for Stream Access, Inc. v. Curran*, 682 P.2d 163, 164-65 (Mont. 1984); *Thomas v. Sanders*, 65 Ohio App. 2d 5, 6, 413 N.E.2d 1224, 1226 (1979).

80. See, e.g., *Maryland Dep't of Nat. Resources v. Amerada Hess Corp.*, 350 F. Supp. 1060, 1062 (D. Md. 1972); *New Jersey Dep't of Envtl. Protection v. Jersey Cent. Power & Light Co.*, 125 N.J. Super. 97, 98-99, 308 A.2d 671, 671-72 (Law Div. 1973).

81. See, e.g., *Marks v. Whitney*, 6 Cal. 3d 251, 261-62, 491 P.2d 374, 381-82, 98 Cal. Rptr. 790, 797-98 (1971); *Paepcke v. Public Bldg. Comm'n*, 46 Ill. 2d 330, 340-41, 263 N.E.2d 11, 18 (1970). In contrast, it is well settled in the courts that citizens cannot enforce the federal navigation servitude. See *Willamette Iron Bridge Co. v. Hatch*, 125 U.S. 1, 12 (1888). Roman law provided for "popular injunctions" whereby citizens had the equivalent of standing, regardless of individual damage, to protect public rights in coastal areas. See *Deveney*, *supra* note 10, at 23-25.

82. The public trust decisions in the last fifteen years reveal that the government was the party invoking the doctrine in the vast majority of cases. See, e.g., *Boston Waterfront Dev. Corp. v. Commonwealth*, 378 Mass. 629, 393 N.E.2d 356 (1979); *State ex rel. Brown v. Newport Concrete Co.*, 44 Ohio App. 2d 121, 336 N.E.2d 453 (1975); *Warren Sand & Gravel Co. v. Commonwealth*, 20 Pa. Commw. 186, 341 A.2d 556 (1975).

83. See *infra* text accompanying notes 157-63.

The most noteworthy developments for the public trust doctrine, however, do not concern the nature of the party invoking the doctrine, but rather the geographical reach of the doctrine and the judicial tests for compliance with the doctrine's mandate. For the former, the doctrine's scope has expanded markedly. For the latter, judicial viewpoints have proliferated remarkably on the meaning of the doctrine and, in particular, on what constitutes governmental or private activity inconsistent with trust restrictions.

2. *The Geographical Reach of the Trust Doctrine*

The public trust doctrine historically concerned public rights (traditionally, commerce, navigation, and fishing⁸⁴) in navigable waters and their submerged beds.⁸⁵ Accordingly, the geographical application of the doctrine turned on the meaning of "navigable water." Although both the federal navigation servitude and state sovereign ownership share common roots, the definition of navigability differs for each. The federal expression of the trust doctrine—the navigation servitude—applies to waters that are "navigable in fact," that is, used or susceptible to being used in their natural condition or with reasonable improvements for purposes of trade or commerce.⁸⁶ State sovereign ownership of submerged beds under the equal footing doctrine similarly applies to waters that are "navigable in fact," but with the added restriction that navigability is determined by considering the condition of the waters only at the time the state was admitted to the Union.⁸⁷ Both of these inquiries raise matters of federal law.⁸⁸

The geographical reach of the public trust doctrine has expanded both within the domain of waters and to other resources, although the geographical reach of the navigation servitude has not extended in a parallel manner.⁸⁹ Gradually, application of the public trust doctrine has shifted to include navigable waters that do not meet the federal test of navigabil-

84. Comment, *supra* note 3, at 777-78.

85. See *supra* text accompanying notes 23-29.

86. *The Daniel Ball*, 77 U.S. (10 Wall.) 557, 563 (1870); see *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 406-09 (1940).

87. See, e.g., *Utah v. United States*, 403 U.S. 9, 10 (1971); *United States v. Oregon*, 295 U.S. 1, 14 (1935).

88. State law, however, determines both the extent of a riparian landowner's title, *Hardin v. Jordan*, 140 U.S. 371, 380 (1891); *Packer v. Bird*, 137 U.S. 661, 669 (1891), and the disposition of lands below the high water mark, *Shively v. Bowlby*, 152 U.S. 1, 40 (1894).

89. Changes in the meaning of navigable waters for the purpose of defining the federal navigation servitude did occur, however, much earlier. In 1921 the Supreme Court broadened the definition to include bodies of water that in the past were subject to commercial use, but no longer were because of subsequent physical or economic changes. See *Economy Light & Power Co. v. United States*, 256 U.S. 113, 123-24 (1921). In 1940 the Court expanded the definition even further to include those bodies of water which through "reasonable improvements" could be made navigable. See *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 407-09 (1940). The current definition of navigable

ity for the purposes of state sovereign title, but instead satisfy the lesser state law standard of navigability.⁹⁰ The result has been a dramatic movement in the geographical application of the trust doctrine away from submerged navigable beds to water resources generally. Recent judicial applications of the doctrine to water rights generally has reflected this trend.⁹¹

Abandoning a jurisdictional test rooted in sovereign resource ownership has not led to abandoning the operations of the doctrine historically bound up in notions of property law and equitable trusts. For instance, although the original roots of the state's duty as trustee were linked to its sovereign ownership of the beds,⁹² courts have nonetheless found the duties in the absence of state ownership.⁹³ Perhaps even more remarkably, the courts have not necessarily read this geographical expansion as having any impact on the relationship of the taking issue to the public trust doctrine. A major factor promoting the public trust doctrine as a sound means to achieve natural resource goals has been the argument that asserting the doctrine creates no problems of unconstitutional takings.⁹⁴ The

waters is set out in United States Army Corps of Engineers regulations. *See* Definition of Navigable Waters of the United States, 33 C.F.R. §§ 329.1-16 (1985).

90. The trend in recent case law is toward a standard requiring only that the water body be susceptible to recreational uses. *See, e.g.,* *People ex rel. Baker v. Mack*, 19 Cal. App. 3d 1040, 1046, 97 Cal. Rptr. 448, 451 (1971); *State ex rel. Brown v. Newport Concrete Co.*, 44 Ohio App. 2d 121, 127, 336 N.E.2d 453, 457 (1975); *see also* *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 435 n.17, 658 P.2d 709, 720 n.17, 189 Cal. Rptr. 346, 356 n.17, *cert. denied*, 464 U.S. 977 (1983). *But see* *Bott v. Commission of Nat. Resources*, 415 Mich. 45, 71-74, 85-86, 327 N.W.2d 838, 846-48, 853 (1982) (public trust not applicable to nonnavigable recreational waters). *See generally* Comment, *Expansion & Integration*, *supra* note 76, at 223-24; Note, *Recreational Rights in Public Water Overlying Private Property*, 8 VT. L. REV. 301 (1983).

91. *See* *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 435, 658 P.2d 709, 719, 189 Cal. Rptr. 346, 356, *cert. denied*, 464 U.S. 977 (1983); *Robinson v. Ariyoshi*, 65 Hawaii 641, 673-77, 658 P.2d 287, 310-12 (1982); *United Plainsmen Ass'n v. North Dakota State Water Conservation Comm'n*, 247 N.W.2d 457, 462-64 (N.D. 1976).

92. Indeed, in the Supreme Court's most recent public trust case, *Summa Corp. v. California ex rel. State Lands Comm'n*, 104 S. Ct. 1751 (1984), all the parties and the Court assumed that the trust applied only to submerged beds that the state owned in its sovereign capacity under the equal footing doctrine. The only issue in *Summa* was whether the doctrine also applied to property when never in sovereign ownership because it had been the subject of a grant by Mexico to a private party prior to California's admission to the Union. *See id.* at 1754-56. The clear thrust of the entire litigation was that the trust doctrine applied to beds that the state actually owned in its sovereign capacity or that otherwise would have been owned if they were not the subject of a prior sovereign grant. No members of the Court contended that the public trust doctrine would ever apply to other categories of submerged lands.

93. *See supra* note 90.

94. *See* Ciriacy-Wantrup & Bishop, *supra* note 76, at 725-26; Wilson, *Private Property and the Public Trust: A Theory for Preserving the Coastal Zone*, 4 UCLA J. ENVTL. & POL. 57, 91 (1984); Comment, *Can New York's Tidal Wetlands Be Saved? A Constitutional and Common*

doctrine, courts and commentators alike have argued, merely reflects the assertion of public rights that preexist any private property rights in the affected resource. Its application, therefore, cannot be deemed a taking of private property.⁹⁵ Without the ownership rationale, one would have expected the taking problem necessarily to reemerge.⁹⁶ That the public trust doctrine has expanded, without a concomitant reassertion of the taking issue, apparently confirms the validity of promoters' predictions that the doctrine was capable of adapting to broader environmental concerns.

The doctrine's expansion to resources other than water resources evinces even greater confirmation of the modern public trust thesis. First spreading within the aquatic environment to include marine life,⁹⁷ and sand and gravel in water beds,⁹⁸ the trust doctrine has steadily emerged from the watery depths to embrace the dry sand area of a beach,⁹⁹ rural parklands,¹⁰⁰ a historic battlefield,¹⁰¹ wildlife,¹⁰² archaeological remains,¹⁰³ and even a downtown area.¹⁰⁴ Litigants, arguing for even further extensions, have gone so far as to assert that the doctrine should apply to air

Law Solution, 39 ALB. L. REV. 451, 474-89 (1975); Comment, *supra* note 3, at 764, 787 n.113.

95. "[P]arties acquiring rights in trust property generally hold those rights subject to the trust, and can assert no vested right to use those rights in a manner harmful to the trust." *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 437, 658 P.2d 709, 721, 189 Cal. Rptr. 346, 358, *cert. denied*, 464 U.S. 977 (1983); *see also* Sax, *supra* note 10, at 186-89. This type of argument is akin to that advanced by the federal government in cases involving the federal navigation servitude. *See United States v. Gerlach Live Stock Co.*, 339 U.S. 725, 736 (1950). *See generally* Note, *Federal-State Conflicts Over the Control of Western Waters*, 60 COLUM. L. REV. 967, 979 (1960).

96. Wisconsin and Michigan courts have concluded that this type of a constitutional issue is presented. *See Bott v. Commission of Nat. Resources*, 415 Mich. 45, 80-81 & n.43, 327 N.W.2d 838, 851 & n.43 (1982) (compensation to private parties required to extend public access to all recreational waters); *Zinn v. State*, 112 Wis. 2d 417, 425-27, 334 N.W.2d 67, 71-72 (1983) (compensation to private parties required for extension of public trust beyond existing level of lake); *see also In re Opinion of the Justices*, 365 Mass. 681, 690, 313 N.E.2d 561, 568 (1974) (legislation authorizing public access to privately owned beaches would amount to taking of private property requiring compensation).

97. *See New Jersey Dep't of Env'tl. Protection v. Jersey Cent. Power & Light Co.*, 125 N.J. Super. 97, 101-02, 308 A.2d 671, 673 (1973).

98. *See Warren Sand & Gravel Co. v. Commonwealth Dep't of Env'tl. Resources*, 20 Pa. Commw. 186, 193-94, 341 A.2d 556, 560 (1975).

99. *See Van Ness v. Borough of Deal*, 78 N.J. 174, 181, 393 A.2d 571, 574 (1978).

100. *See Paepcke v. Public Bldg. Comm'n*, 46 Ill. 2d 330, 336, 263 N.E.2d 11, 15 (1970); *Gould v. Greylock Reservation Comm'n*, 350 Mass. 410, 421, 215 N.E.2d 114, 121 (1966).

101. *See Commonwealth v. National Gettysburg Battlefield Tower, Inc.*, 454 Pa. 193, 197-98, 311 A.2d 588, 591 (1973).

102. *See Wade v. Kramer*, 121 Ill. App. 3d 377, 379-80, 459 N.E.2d 1025, 1027 (1984).

103. *See id.*, 459 N.E.2d 1025, 1027 (1984). *But see San Diego County Archaeological Soc'y, Inc. v. Compadres*, 81 Cal. App. 3d 923, 927, 146 Cal. Rptr. 786, 788 (1978) (doctrine does not apply to archaeological remains).

104. *See Wisconsin's Env'tl. Decade, Inc. v. Wisconsin Dep't of Nat. Resources*, 115 Wis. 2d 381, 388-89, 340 N.W.2d 722, 726 (1983).

resources¹⁰⁵ and cemeteries.¹⁰⁶ One state supreme court recently has construed the trust doctrine to apply to all natural resources, including air and water, and, consequently, to govern state agency decisions that implement state hazardous waste control legislation.¹⁰⁷ Although the court gleaned these trust principles from constitutional and statutory law, the court explicitly relied as well on a separately identified "public trust concept."¹⁰⁸ Other courts have declined invitations to extend the doctrine to an alley adjoining a junkyard¹⁰⁹ and to man-made showers and bathhouses on the seashore.¹¹⁰

3. *Restrictions on Governmental Actions Adverse to Trust Concerns*

Advocates of the public trust doctrine have been concerned primarily with the ability of the doctrine to impose enforceable restrictions on the authority of the sovereign to act in a manner potentially harmful to the trust resource.¹¹¹ Predictions that the doctrine would provide courts with the needed legal basis to restrict such governmental acts have borne out. Still, the doctrine's precise meaning to those courts has varied considerably. Some courts diverge from the mainstream to find that the doctrine places an affirmative duty on the government to protect or conserve trust resources in the first instance.¹¹² Most, however, find it restricts governmental actions that adversely affect trust concerns. Within this latter category, courts differ considerably over the precise standards to apply to the challenged governmental action. The decisions gravitate around three types of standards: (1) a requirement that the challenged governmental action satisfy a public trust purpose;¹¹³ (2) a requirement that the

105. See *Evans v. City of Johnstown*, 96 Misc. 2d 755, 769-71, 410 N.Y.S.2d 199, 207-08 (Sup. Ct. 1978); cf. *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 430-31, 435, 658 P.2d 709, 716, 719, 189 Cal. Rptr. 346, 353, 356 (commenting on adverse impacts on air quality of trust resource), *cert. denied*, 464 U.S. 977 (1983).

106. See *Washington Metro Area Transit Auth. v. One Parcel of Land*, 514 F.2d 1350, 1352 (D.C. Cir. 1975).

107. See *Save Ourselves, Inc. v. Louisiana Envtl. Control Comm'n*, 452 So. 2d 1152, 1154 n.102, 1157 (La. 1984).

108. See *id.* at 1154.

109. See *Mamolella v. First Bank*, 97 Ill. App. 3d 579, 582-83, 423 N.E.2d 204, 206-07 (1981).

110. See *Hyland v. Borough of Allenhurst*, 148 N.J. Super. 437, 442-43, 372 A.2d 1133, 1136 (1977), *modified*, 78 N.J. 190, 393 A.2d 579 (1978).

111. This focus on suits against the government is evident, for instance, throughout Sax' article and is most clearly stated in the list of three characteristics the doctrine must possess to be meaningful. See *supra* note 66 and accompanying text. One of those characteristics is that the public right must be "enforceable against the government." Sax, *supra* note 3, at 474.

112. See, e.g., *State v. Zimring*, 58 Hawaii 106, 121, 566 P.2d 725, 735 (1977); *People of Smithtown v. Poveromo*, 71 Misc. 2d 524, 534, 336 N.Y.S.2d 764, 776-77 (Suffolk County Ct. 1972); *Lower Colo. River Auth. v. Texas Dep't of Water Resources*, 689 S.W.2d 873, 875, 882 (Tex. 1984).

113. See *infra* text accompanying notes 116-28.

disputed action occur only after consideration of any adverse impact on the trust resource and then only if such impact is either minimal or necessary;¹¹⁴ and (3) a requirement that if the action challenged is that of an executive branch agency, the proposed action has specific legislative authorization.¹¹⁵

a. Requirement of a Public Trust Purpose

For some courts, the requirement of some public trust purpose is satisfied quite easily. These courts simply look for some relationship between the proposed governmental action and a legitimate public purpose.¹¹⁶ This standard apparently does not require significantly more than would the normal police power inquiry for a valid public purpose.¹¹⁷ Other courts, however, have gone further and required the public purpose to have some connection with the substantive concerns of the trust doctrine. For some judges, this means a relation to the traditional public trust purposes—commerce, navigation, and fishing.¹¹⁸ For others, the requirement extends further and calls for a relation to the resource in its natural condition. For example, some courts have suggested that the proposed use of a navigable waterway or its banks should bear some direct relation to and be consistent with the aquatic characteristics of the resource.¹¹⁹

In either event, the tests have proved susceptible to flexible application. Courts have found diverse activities such as production of oil¹²⁰ and construction of bridges,¹²¹ a YMCA,¹²² restaurants, bars, and a shopping

114. See *infra* text accompanying notes 129-48.

115. See *infra* text accompanying notes 149-54.

116. See, e.g., *State v. Zimring*, 58 Hawaii 106, 120-21, 566 P.2d 725, 734-35 (1977) (access to lava extensions a valid public purpose); *Opinions of the Justices*, 383 Mass. 895, 905-06, 424 N.E.2d 1092, 1100-01 (1981) (desire to clear titles satisfies public purpose requirement); *New Jersey Sports & Exposition Auth. v. McCrane*, 119 N.J. Super. 457, 472-76, 292 A.2d 580, 589-91 (1971) (sports and racing facility a valid public purpose); *Commonwealth v. National Gettysburg Battlefield Tower, Inc.*, 454 Pa. 193, 200-01, 311 A.2d 588, 592 (1973) (development a valid public purpose); *Town of Ashwaubenon v. Public Serv. Comm'n*, 22 Wis. 2d 38, 49-50, 125 N.W.2d 647, 653 (1964) (private structures and filling in waterbeds a valid public purpose).

117. See, e.g., *Exxon Corp. v. Maryland*, 437 U.S. 117, 124-25 (1978).

118. See, e.g., *City of Berkeley v. Superior Court*, 26 Cal. 3d 515, 521, 606 P.2d 362, 364-65, 162 Cal. Rptr. 327, 329-30, *cert. denied*, 449 U.S. 840 (1980); see also *People ex rel. Scott v. Chicago Park Dist.*, 66 Ill. 2d 65, 77-81, 360 N.E.2d 773, 779-81 (1976) (promotion of plant facilities and jobs not valid trust purpose).

119. See, e.g., *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 440-41, 658 P.2d 709, 723, 189 Cal. Rptr. 346, 360, *cert. denied*, 464 U.S. 977 (1983); *State ex rel. State Lands Comm'n v. County of Orange*, 134 Cal. App. 3d 20, 23-24, 184 Cal. Rptr. 423, 424-25 (1982); see also Sax, *supra* note 3, at 512, 514, 520-21 (describing tests applied by Wisconsin state courts).

120. See *Boone v. Kingsbury*, 206 Cal. 148, 189-93, 273 P. 797, 815-16 (1928).

121. See *Colberg, Inc. v. State ex rel. Dep't of Public Works*, 67 Cal. 2d 408, 417-18, 432 P.2d 3, 9, 62 Cal. Rptr. 401, 407 (1967) (dictum), *cert. denied*, 390 U.S. 949 (1968).

122. See *People v. City of Long Beach*, 51 Cal. 2d 875, 879-80, 338 P.2d 177, 179 (1959).

complex¹²³ to meet these heightened trust standards. More recently, one court concluded that developing a public trust water resource to build an airport runway does not offend trust concerns, with one member of the court reasoning that the airport would promote "commerce" and possible air "navigation."¹²⁴ So too, highways,¹²⁵ driving ranges,¹²⁶ and shopping malls¹²⁷ have in recent years passed public trust muster. One court even ruled that granting licenses to commercial enterprises for areas of a public lake does not run afoul of public trust purpose restrictions.¹²³

b. Requirement of Prior Consideration and Minimization of Adverse Impacts on Trust Values

The most meaningful construction the courts have given the public trust doctrine has been to require the government to consider the adverse impacts of a proposed action on trust resources. The impact of this consideration requirement is at its greatest when coupled with the additional mandate that only minimal or "necessary" harm is permissible. Courts have held that consideration of trust concerns occurs in advance of proposed governmental action,¹²⁹ requires prior comprehensive resource planning¹³⁰ or specific cost/benefit balancing,¹³¹ and includes a continuing duty to reconsider when circumstances and knowledge change.¹³² The consideration requirement asks courts to scrutinize more carefully the basis of administrative agency decisions when trust values are at stake.¹³³

Some courts add the restriction that the government is always barred from inflicting more than a modicum of harm to trust interests. This restriction is expressed in several forms. Most courts, borrowing language

123. See *Martin v. Smith*, 184 Cal. App. 2d 571, 578, 7 Cal. Rptr. 725, 728 (1960). Professor Sax not only recognized this phenomenon, but apparently endorsed it, arguing that the water-relatedness requirement may be satisfied by cafes, restaurants, motels, hotels, and the like. See Sax, *supra* note 3, at 531-32, 535.

124. See *Morse v. Oregon Div. of State Lands*, 285 Or. 197, 217, 590 P.2d 709, 716 (1979) (Bryson, J., concurring).

125. See *Wade v. Kramer*, 121 Ill. App. 3d 377, 378-79, 459 N.E.2d 1025, 1026 (1984).

126. See *Clement v. Chicago Park Dist.*, 96 Ill. 2d 26, 31, 449 N.E.2d 81, 83-84 (1983).

127. See *Wisconsin's Env'tl. Decade, Inc. v. Wisconsin Dep't of Nat. Resources*, 115 Wis. 2d 381, 388, 410-12, 340 N.W.2d 722, 726, 737-38 (1983).

128. See *State v. Village of Lake Delton*, 93 Wis. 2d 78, 81-82, 106, 286 N.W.2d 622, 624-25, 636 (1979).

129. See *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 446-47, 658 P.2d 709, 728, 189 Cal. Rptr. 346, 365, *cert. denied*, 464 U.S. 977 (1983).

130. See *United Plainsmen Ass'n v. North Dakota State Water Conservation Comm'n*, 247 N.W.2d 457, 463 (N.D. 1976).

131. See *Payne v. Kassab*, 11 Pa. Commw. 14, 29-30, 312 A.2d 86, 94 (1973); see Stevens, *supra* note 10, at 224.

132. See *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 446-47, 658 P.2d 709, 728-29, 189 Cal. Rptr. 346, 365-66, *cert. denied*, 464 U.S. 977 (1983).

133. *Save Ourselves, Inc. v. Louisiana Env'tl. Control Comm'n*, 452 So. 2d 1152, 1159-60 (La. 1984).

from the *Illinois Central* decision,¹³⁴ have required that there be no "substantial impairment" of the trust resource.¹³⁵ Other courts have stated that only a "small percentage" of the trust resource¹³⁶ may be harmed or that only "limited encroachments" may be made on the resource.¹³⁷ Finally, many courts have held that the public trust doctrine requires that the public have access to the resource, regardless of the public or private character of the nominal owner of the resource.¹³⁸ Accordingly, even if governmental alienation of a coastal shoreline into private hands is otherwise permissible, these courts would rule that such alienation must not prejudice the public right of access to the resource.¹³⁹ Beach access cases have been a frequent subject of public trust litigation over the last fifteen years as courts have extended trust interests to include recreation,¹⁴⁰ the temporary use of adjacent private property for the placement of a beach towel,¹⁴¹ even to the use of municipal toilet facilities.¹⁴² On the basis of the doctrine, moreover, state courts have struck down laws restricting public access to beach facilities.¹⁴³

The courts, in more recent decisions, have recognized that destruction of trust resources is sometimes necessary, and therefore, they will

134. See 146 U.S. at 453 ("without any substantial impairment of the public interest in the lands and waters remaining").

135. See, e.g., *Superior Public Rights, Inc. v. State Dep't of Nat. Resources*, 80 Mich. App. 72, 84, 263 N.W.2d 290, 295-96 (1977); *Morse v. Oregon Div. of State Lands*, 285 Or. 197, 202-03, 590 P.2d 709, 711 (1979); *Wisconsin's Envtl. Decade, Inc. v. Wisconsin Dep't of Nat. Resources*, 115 Wis. 2d 381, 391-94, 340 N.W.2d 722, 728-29 (1983).

136. See, e.g., *Orange County v. Heim*, 30 Cal. App. 3d 694, 723-26, 106 Cal. Rptr. 825, 849-52 (1973); *Paepcke v. Public Bldg. Comm'n*, 46 Ill. 2d 330, 343, 263 N.E.2d 11, 19 (1970); *State v. Public Serv. Comm'n*, 275 Wis. 112, 118, 81 N.W.2d 71, 73-74 (1957).

137. See, e.g., *Hixon v. Public Serv. Comm'n*, 32 Wis. 2d 608, 618, 146 N.W.2d 577, 582 (1966).

138. See, e.g., *Boston Waterfront Dev. Corp. v. Commonwealth*, 378 Mass. 629, 649-50, 393 N.E.2d 356, 367 (1979); *Saetz v. Heiser*, 240 N.W.2d 67, 72 (N.D. 1976).

139. See, e.g., *Matthews v. Bay Head Improvement Ass'n*, 95 N.J. 306, 326, 471 A.2d 355, 365-66, *cert. denied*, 105 S. Ct. 93 (1984); *Boston Waterfront Dev. Corp. v. Commonwealth*, 378 Mass. 629, 649, 393 N.E.2d 356, 367 (1979). *But see* *Opinions of the Justices*, 383 Mass. 895, 902, 905, 424 N.E.2d 1092, 1098, 1100 (1981) (public trust does not bar legislature from extinguishing public interest in submerged lands). Similarly, in feudal times the sovereign's grant of the ancient desmesne, see *supra* note 20, might be valid, but the grant was subject to the privileges of the ancient desmesne tenants and therefore those tenants retained their special liberties and immunities. 1 F. POLLOCK & W. MAITLAND, *supra* note 20, at 385.

140. See *Selvin*, *supra* note 10, at 1439-40; *Stevens*, *supra* note 10, at 221-23. *But see* *Livingston*, *supra* note 75, at 681-82 (Virginia public trust does not extend to recreation in navigable waters).

141. See *Matthews v. Bay Head Improvement Ass'n*, 95 N.J. 306, 326, 471 A.2d 355, 365-66, *cert. denied*, 105 S. Ct. 93 (1984).

142. See *Hyland v. Borough of Allenhurst*, 78 N.J. 190, 196, 393 A.2d 579, 582 (1978).

143. See, e.g., *Van Ness v. Borough of Deal*, 78 N.J. 174, 180, 393 A.2d 571, 574 (1978). One court wisely held that the doctrine does not void a state law restricting motorboats on a lake during Sunday. See *Menzer v. Village of Elkhart Lake*, 51 Wis. 2d 70, 84, 186 N.W.2d 290, 298 (1971).

impose a public trust standard that calls for heightened administrative justification for the action.¹⁴⁴ This standard is implemented, for instance, by reversing the presumption of agency regularity and expertise,¹⁴⁵ allowing only "necessary" harmful activities,¹⁴⁶ or requiring that the government take all "reasonable"¹⁴⁷ or "feasible"¹⁴⁸ steps to minimize the harm. Each of these standards by their terms stops short of declaring an absolute environmental quality standard.

c. Requirement of Clear Statutory Authority to Impinge on Trust Values

The third type of public trust standard the courts have utilized to check governmental activities that threaten trust resources requires strict statutory construction of legislative delegations of authority to administrative agencies. Professor Sax emphasized particularly this technique.¹⁴⁹ The underlying substantive thrust of this standard holds that only the legislature can properly decide to have the government take action that may substantially harm trust resources, because the legislature most closely mirrors the will of the public. Although a few courts have interpreted this mandate literally and have stated that only the legislature can interfere with trust interests,¹⁵⁰ most permit the power to be delegated, requiring only varying degrees of clarity when the legislature delegates authority to the relevant administrative agency. The general test is whether the legislative delegation of authority to the agency is clear, express, and specific.¹⁵¹ Specificity may require that the legislature identify the trust property at issue and expressly acknowledge the existing use of the resource that the

144. This assumption of administrative irregularity apparently was an explicit object of Professor Sax' public trust thesis, *see Sax, supra* note 3, at 490, and was the focus of much scholarly criticism, *see Jaffe, Book Review*, 84 HARV. L. REV. 1562, 1564-69 (1971); Tarlock, *Book Review*, 47 IND. L.J. 406, 411-14 (1972); *see also* Butler & Cameron, *Book Review*, 1 ECOLOGY L.Q. 228, 231 (1971).

145. *See Sax, supra* note 3, at 514.

146. *See National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 446, 658 P.2d 709, 728, 189 Cal. Rptr. 346, 365, *cert. denied*, 464 U.S. 977 (1983).

147. *See Payne v. Kassab*, 11 Pa. Commw. 14, 28-29, 312 A.2d 86, 94-95 (1973).

148. *See National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 446, 658 P.2d 709, 728, 189 Cal. Rptr. 346, 364, *cert. denied*, 464 U.S. 977 (1983).

149. *See Sax, supra* note 3, at 542-43.

150. *See Boston Waterfront Dev. Corp. v. Commonwealth*, 378 Mass. 629, 648-49, 393 N.E.2d 356, 366 (1979); *Gewirtz v. City of Long Beach*, 330 N.Y.S.2d 495, 511 (Sup. Ct. 1972).

151. *See State Dep't of Nat. Resources v. City of Haines*, 627 P.2d 1047, 1052 (Alaska 1981); *City of Berkeley v. Superior Court*, 26 Cal. 3d 515, 528, 606 P.2d 362, 367, 162 Cal. Rptr. 327, 332, *cert. denied*, 449 U.S. 840 (1980); *cf. Gulf Oil Corp. v. State Mineral Bd.*, 317 So. 2d 576, 586 (La. 1974) (statutes should be interpreted in light of state's public policy). The United States is not unique in reading narrowly conveyances of trust property. Under German dynastic law, property the Crown held in its sovereign capacity, such as artwork, could be disposed of only with the express authorization of the *Diet* (Parliament). *See Kunstsammlungen Zu Weimar v. Elicofon*, 678 F.2d 1150, 1153-54 (2d Cir. 1982). Recently, one commentator has argued that public trust-like principles should be applied to art. *See Comment, Public Interest in Art, supra* note 76, at 129-36.

proposed governmental action will harm.¹⁵² The Wisconsin courts have further required that legislative delegations of authority to harm trust resources must be delegations to governmental bodies of statewide concern.¹⁵³ This restriction's purpose is to minimize the possibility of parochial interests neglecting broader statewide interests.¹⁵⁴

4. *Promotion of Governmental Authority*

As discussed above,¹⁵⁵ recent developments in the public trust doctrine arena have not been confined to suits in which the private citizen is the plaintiff asserting the doctrine and the government is the unwilling defendant resisting the trust's application. Indeed, the proponent of the trust doctrine has quite often been the government. Typically, the government has argued that the public trust doctrine expands sovereign authority over natural resources covered by the doctrine. In particular, the government asserts that the doctrine limits the nature of valid private property rights in those resources, rendering permissible governmental measures that impinge on those private interests.¹⁵⁶

Many courts have adopted this theory of enhanced sovereign authority. These courts refer to the sovereign's greater regulatory authority over trust resources as the "great police power of the people."¹⁵⁷ Some courts, possibly in anticipation of takings challenges to strict governmental resource protection measures, have ruled that there are no "vested rights" to act contrary to the trust.¹⁵⁸ Courts also emphasize that all conveyances of trust resources to private parties are subject to the sovereign's retained supervisory authority;¹⁵⁹ private property rights in the resource are "impressed" with the public trust,¹⁶⁰ fee simple absolute notwithstanding.

152. See *Gulf Oil Corp. v. State Mineral Bd.*, 317 So. 2d 576, 578-79 (La. 1974); *Opinions of the Justices*, 383 Mass. 895, 919-20, 424 N.E.2d 1092, 1108 (1981); *Gould v. Greylock Reservation Comm'n*, 350 Mass. 410, 419-21, 426, 215 N.E.2d 114, 121-23, 126 (1966).

153. See *Muench v. Public Serv. Comm'n*, 261 Wis. 492, 515, 53 N.W.2d 514, 524 (1952).

154. See *Sax*, *supra* note 3, at 521-23.

155. See *supra* text accompanying notes 82-83.

156. See *id.*

157. See, e.g., *People of Smithtown v. Poveromo*, 71 Misc. 2d 524, 534, 336 N.Y.S.2d 764, 776 (Suffolk County Ct. 1972).

158. See, e.g., *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 424, 658 P.2d 709, 712, 189 Cal. Rptr. 346, 349, *cert. denied*, 464 U.S. 977 (1983) ("[The public trust] authority . . . bars any party from claiming a vested right to divert waters once it becomes clear that such diversions harm the interests protected by the trust"); see also *United States Trust Co. v. New Jersey*, 431 U.S. 1, 50 (1977) (Brennan, J., dissenting); *Warren Sand & Gravel Co. v. Commonwealth Dep't of Envtl. Resources*, 20 Pa. Commw. 186, 193-94, 341 A.2d 556, 560 (1975).

159. See, e.g., *United States v. 1.58 Acres of Land*, 523 F. Supp. 120, 124 (D. Mass. 1981); *Bortz Coal Co. v. Commonwealth*, 2 Pa. Commw. 441, 453-54, 279 A.2d 388, 396 (1971).

160. See *People v. California Fish Co.*, 166 Cal. 576, 588, 138 P. 79, 84 (1913); see

Courts have used the trust doctrine in a variety of other ways to enhance state enforcement efforts. For example, several courts have held that the doctrine confers standing on the government to seek injunctive relief to prevent threats to trust resources,¹⁶¹ or when the harm has already occurred, to sue for monetary relief.¹⁶² At least one court has held that the doctrine eliminates any laches defense to a state enforcement action based on the trust.¹⁶³

III. THE PAST AND FUTURE ROLES OF THE PUBLIC TRUST DOCTRINE

The persistent role that the public trust doctrine has played in natural resources and environmental law over the past fifteen years has established the doctrine as an important subject for study and academic inquiry. Whether the doctrine is a viable legal concept worthy of continued advancement by public spirited litigants, however, is not answered by the doctrine's persistence alone. The remainder of this Article addresses this more fundamental question.

Assessment of the future value of the public trust doctrine must start with the candid premise that the doctrine rests on legal fictions. Notions of "sovereign ownership" of certain natural resources and the "duties of the sovereign as trustee" to natural resources are simply judicially created shorthand methods to justify treating differently governmental transactions that involve those resources. Like most legal fictions,¹⁶⁴ the purpose of the public trust doctrine at various periods of American legal history and in recent years has been to avoid judicially perceived limitations or consequences of existing rules of law. The precise object of concern varied; in *Illinois Central*, it was corrupt or shortsighted state legislatures;¹⁶⁵ in the nineteenth-century water rights and city street matters, it was inadequacies in absolute private property rights that denied public needs¹⁶⁶ or private tort remedies that threatened municipal development;¹⁶⁷ more recently,

also *State v. Superior Court*, 29 Cal. 3d 210, 228, 625 P.2d 239, 250, 172 Cal. Rptr. 696, 706, *cert. denied*, 454 U.S. 865 (1981).

161. See *Bortz Coal Co. v. Air Pollution Comm'n*, 2 Pa. Commw. 441, 453-54, 279 A.2d 388, 396 (1971), *appeal after remand*, 7 Pa. Commw. 362, 299 A.2d 670 (1973); *State v. Deetz*, 66 Wis. 2d 1, 12, 224 N.W.2d 407, 413 (1974).

162. See *State Dep't of Nat. Resources v. Amerada Hess Corp.*, 350 F. Supp. 1060, 1065-67 (D. Md. 1972); *New Jersey Dep't of Env'tl. Protection v. Jersey Cent. Power & Light Co.*, 125 N.J. Super. 97, 102, 308 A.2d 671, 673-74 (1973).

163. See *Corvallis Sand & Gravel Co. v. State Land Bd.*, 250 Or. 319, 325-26, 439 P.2d 575, 578 (1968). The Supreme Court recently rejected a state's claim that its ownership of sovereign lands held in public trust eliminated the need for compliance with an otherwise applicable federal statute of limitations in an action brought by the United States to quiet title to a riverbed. See *Block v. North Dakota*, 461 U.S. 273, 287 (1983), which is discussed *infra* at note 471.

164. L. FULLER, *LEGAL FICTIONS* 53 (1967).

165. See *supra* text accompanying notes 30-44.

166. See *supra* text accompanying notes 48-49.

167. See *supra* text accompanying note 52.

the source of worry in the environmental arena has, as Professor Sax put it, been with "insufficiencies of the democratic process."¹⁶⁸

To be sure, courts and commentators alike invariably refer to the ancient law origins of the doctrine,¹⁶⁹ thereby suggesting that the legal basis upon which they rely is long settled and not a matter of judicial creation. Still, even assuming the doctrine existed in ancient times, which may be doubtful,¹⁷⁰ the courts have made no effort to discover the doctrine's ancient bounds or to remain confined to those bounds. Indeed, the thrust of current "protrust" commentary is to the contrary;¹⁷¹ the viability of the ancient roots is largely irrelevant to the doctrine's current application, apart from presenting "seeds of ideas."¹⁷²

Characterizing the public trust as a "legal fiction," however, is not intended, by itself, to suggest a negative verdict on the doctrine's worth or vitality.¹⁷³ Although undoubtedly the term "fiction" has negative connotations, it is far too late in the day to condemn legal fictions as mere "fictions" and ignore that they quite often play a significant role in the law's development, as they must for any sort of system that strives for comprehensiveness in the face of limited and changing knowledge.¹⁷⁴ As Professor Lon Fuller has described in his classic work on legal fictions, they "are, to a certain extent, simply the growing pains of the language of the law."¹⁷⁵

Instead of immediately casting the fiction aside, recognizing the fictional nature of the trust doctrine is necessary to frame the debate on the doctrine's continued usefulness in natural resources law. Just as the need for legal fictions arises in the wake of changing circumstances that strain existing legal norms, so too the need dissipates when, over time, the fabric of the law is woven in a more coherent and systematic fashion in response to those initial changes. Or, alternatively, new changes may occur that similarly remove the initial justification for the fiction's creation. In this manner, a time comes when the fiction is no longer necessary. Even more fundamentally, the fiction's continued use obscures analysis and thus impedes the law's coherent development.¹⁷⁶ On this basis, the future of the public trust doctrine in natural resources law must be assessed.

168. Sax, *supra* note 3, at 521.

169. See, e.g., *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 429, 658 P.2d 709, 718, 189 Cal. Rptr. 346, 355, *cert. denied*, 464 U.S. 977 (1983); Stevens, *supra* note 10, at 195-98.

170. See *supra* text accompanying notes 11-20.

171. See, e.g., Stevens, *supra* note 10, at 195-98; Wilkinson, *supra* note 76, at 298-304.

172. Sax, *supra* note 3, at 485.

173. In contrast, Bentham, according to Professor Fuller, took just such a harsh stand on the use of fictions in law: "'Fiction of use to justice? Exactly as swindling is to trade.'" L. FULLER, *supra* note 164, at 3 (quoting BENTHAM WORK at vii, 283 (J. Bowring ed. 1843)).

174. L. FULLER, *supra* note 164, at x, 94.

175. See *id.* at 22.

176. *Id.* at 70, 121-22.

Assessing the public trust doctrine on this basis leads to the conclusion that the day of "final reckoning"¹⁷⁷ for the doctrine is here, or soon will be, and reliance upon it is no longer in order. As shown in the following sections, the law of standing, tort law, property law, administrative law, and the police power have all evolved in response to increased societal concern for and awareness of environmental and natural resources problems and are weaving a new and unified fabric for natural resources law. Whether these developments are viewed as totally independent of the doctrine or, alternatively, as somehow having subsumed the doctrine's principles does not matter. The conclusion is the same from either perspective: much of what the public trust doctrine offered in the past is now, at best, superfluous and, at worst, distracting and theoretically inconsistent with new notions of property and sovereignty developing in the current reworking of natural resources law. Section IV will consider in detail these adverse consequences of continued reliance on the doctrine.¹⁷⁸

A. The Law of Standing and the Public Trust Doctrine

The law of standing illustrates the doctrine's current demise.¹⁷⁹ Promoting the public trust doctrine was in part based on its potential for providing citizens with the "legal interest" or "legal right" necessary to confer standing to bring a lawsuit.¹⁸⁰ At the time Professor Sax wrote his article, a litigant had to demonstrate an injury to a legal interest to possess standing to sue, particularly with regard to judicial review of governmental agency action.¹⁸¹ The legal right, moreover, had to be either "one of property, one arising out of contract, one protected against tortious invasion, or one founded on a statute which confers a privilege."¹⁸² Whether concern about environmental harm or waste of natural resources satisfied this standing requirement was in serious doubt; at least it had not been satisfactorily resolved in favor of environmental interests. The public trust doctrine, by providing a formal legal right to environmental quality, addressed the standing concern.

177. *Id.* at 121.

178. *See infra* text accompanying notes 368-476.

179. The issue of standing to sue asks whether a particular plaintiff is entitled to have a court consider the merits of a dispute. L. TRIBE, *AMERICAN CONSTITUTIONAL LAW* 79 (1978). It is a question of justiciability, derived mostly from article III of the Constitution, which extends judicial power only to "cases" or "controversies," *see* U.S. CONST. art. III, § 2, but is also derived partly from limitations that the judiciary has self-imposed. L. TRIBE, *supra*, at 52-53. Standing is thus related to other concepts of justiciability, including those concerning advisory opinions, political questions, ripeness, and mootness, but it is theoretically distinct in its focus on the plaintiff, rather than on the issues presented. *Id.* at 79.

180. *See* Coquillette, *supra* note 10, at 814-16; *see also supra* text accompanying note 57.

181. *See, e.g.,* Tennessee Elec. Power Co. v. Tennessee Valley Auth., 306 U.S. 118, 137 (1939).

182. *Id.* at 137-38.

Hindsight teaches, however, that this aspect of the doctrine was not needed. Soon after the Sax article was published, the Supreme Court dramatically liberalized standing requirements,¹⁸³ responding in large part to the need to recognize the legitimacy of the new type of injury reflected in environmental cases. The Court abandoned the legal interest test on the ground that it improperly based a litigant's right to sue on a preliminary determination of the merits¹⁸⁴ and read the Constitution's case or controversy requirement to restrict federal court jurisdiction to cases in which a plaintiff alleges an "injury in fact, economic or otherwise."¹⁸⁵ Justice Douglas, writing for the majority in *Data Processing*, stressed that the requisite injury could encompass injury to a broad range of values, including aesthetic, conservational, and recreational interests.¹⁸⁶

In a host of subsequent cases involving allegations of environmental injuries, the Court further opened the avenues to these lawsuits.¹⁸⁷ Although denying standing to the Sierra Club in 1972 for the lack of any allegations that developing a national forest would affect any of the club's activities, the Court stressed that the Sierra Club would clearly possess standing by suing in its own name on behalf of its members who were injured in fact.¹⁸⁸ When stating in another case that the injury must be personal,¹⁸⁹ the Court added that "standing is not to be denied simply because many people suffer the same injury."¹⁹⁰ On that ground the Court upheld standing even though "all persons who utilize the scenic resources of the country, and indeed, all who breathe its air" shared the alleged harm.¹⁹¹ Finally, in environmental cases, the Court has liberally construed the standing requirement that a fairly traceable causal connection must exist between the defendant's alleged illegal conduct and the plaintiff's injury to ensure that the relief sought will redress the injury.¹⁹² In one case, the Court

183. See *Association of Data Processing Serv. v. Camp*, 397 U.S. 150, 154 (1970).

184. See *id.* at 153.

185. See *id.* at 152. Many commentators have viewed the "injury in fact" test established in *Data Processing* as a substantial liberalization of standing requirements. See, e.g., Scott, *Standing in the Supreme Court—A Functional Analysis*, 86 HARV. L. REV. 645, 662-69 (1973); Note, *Standing to Challenge the Constitutionality of the Federal Election Campaign Act: The Effect of a Congressional Attempt to Relax Standing Requirements*, 65 GEO. L.J. 1231, 1249 & n.100, 1252-53 & n.116 (1977).

186. See 397 U.S. at 154.

187. See, e.g., *Watt v. Energy Action Educ. Found.*, 454 U.S. 151, 161 (1981); *Duke Power Co. v. Carolina Envtl. Study Group*, 438 U.S. 59, 81 (1978); *United States v. Students Challenging Regulatory Agency Procedures*, 412 U.S. 669, 685 (1973) [hereinafter cited as *United States v. SCRAP*].

188. See *Sierra Club v. Morton*, 405 U.S. 727, 739 (1972). One year later in *SCRAP* the Court upheld the standing of an organization apparently formed for the purpose of bringing the suit in question. See *United States v. SCRAP*, 412 U.S. 669, 685 (1973).

189. See *Simon v. Eastern Ky. Welfare Rights Org.*, 426 U.S. 26, 40 n.20 (1976); *Warth v. Seldin*, 422 U.S. 490, 502 (1975).

190. See *United States v. SCRAP*, 412 U.S. 669, 687 (1973).

191. See *id.*

192. Cf. *Simon v. Eastern Ky. Welfare Rights Org.*, 426 U.S. 26, 41-42 (1976); *Linda R.S. v. Richard D.*, 410 U.S. 614, 617-18 (1973).

found standing when the plaintiffs alleged that a proposed across-the-board railroad freight fare increase would result in increased pollution because it would reduce the cost-effectiveness of recycling.¹⁹³ In another, the Court found the required causal nexus was met when plaintiffs alleged that a federal statute limiting liability in the event of a major nuclear accident would lead, through a chain of causation, to potential water pollution from a proposed nuclear power plant.¹⁹⁴

The law of standing, in short, has dramatically evolved to embrace the particular characteristics of a case or controversy involving environmental injuries, the lack of a formal legal right and the often attenuated nature of the causation chain in environmental cases being two typical characteristics. The rationale of the trust doctrine was unnecessary. Indeed, the doctrine's emphasis on formal legal rights is inconsistent with the rationale of the modern standing decisions that have fostered environmental protection goals.

B. Nuisance Law and the Public Trust Doctrine

Examining nuisance law similarly casts doubt on the continuing role of the public trust doctrine.¹⁹⁵ Promoters of the public trust doctrine such as Professor Sax rejected nuisance law in favor of the public trust doctrine because the former was "encrusted" with antiquated requirements.¹⁹⁶ The strict limits on private citizen suits based on public nuisance law, historically a basis only for suits brought by the attorney general, and the traditional relationship between nuisance and actions irrelevant to natural resource issues, such as suits against brothels and gambling dens, were two explicit concerns.¹⁹⁷

Neither of these concerns with the limits of nuisance law, however, was realized. First, the substantive scope of both public and private nuisance law has quite willingly embraced environmental and natural resource concerns.¹⁹⁸ In public nuisance cases, courts have had no difficulty find-

193. See *United States v. SCRAP*, 412 U.S. 669, 678 (1973).

194. See *Duke Power Co. v. Carolina Env'tl. Study Group*, 438 U.S. 59, 73 (1978).

195. According to the *Restatement (Second) of Torts*, a public nuisance is the "unreasonable interference with a right common to the general public." See *RESTATEMENT (SECOND) OF TORTS* § 821B (1977). "A private nuisance is a nontrespassory invasion of another's interest in the private use and enjoyment of land." *Id.* § 821D. See generally *PROSSER AND KEETON ON THE LAW OF TORTS* §§ 86-91, at 616-54 (W. Keeton 5th ed. 1984) [hereinafter cited as *PROSSER AND KEETON*].

196. See Sax, *supra* note 3, at 485 n.45.

197. See *id.*

198. This is not surprising. Courts historically have treated the public trust doctrine and nuisance law as equivalents in the context of interference with public rights in navigable waterways. See, e.g., *United States v. Dixie Carriers, Inc.*, 462 F. Supp. 1126, 1130 (E.D. La. 1978), *aff'd*, 627 F.2d 736 (5th Cir. 1980); *Hartford Elec. Light Co. v. Water Resources Comm'n*, 162 Conn. 89, 101, 291 A.2d 721, 729-30 (1971); *Mamolella v. First Bank*, 97 Ill. App. 3d 579, 582-83, 423 N.E.2d 204, 206-07 (1981); *Dumont v. Speers*, 245 A.2d 151, 155 (Me. 1968). Commentators also have pointed out the close relationship

ing that threats to the natural environment and to public health from environmental pollution implicate "rights common to the public."¹⁹⁹ The *Restatement (Second) of Torts* quite clearly draws the connection between public nuisance doctrine and environmental protection.²⁰⁰ Moreover, the relevance of environmental protection to private nuisance law is axiomatic. Private nuisance law by definition restricts activities that interfere with the use and enjoyment of land.²⁰¹ Land is such a fundamental natural resource that most environmental threats, whether directed at natural resources or public health, can easily be read as interfering with the land's use and enjoyment, and thereby potentially raising private nuisance claims.²⁰²

The second concern, that only the attorney general could maintain a public nuisance lawsuit, similarly was not realized. Courts have not confined public nuisance lawsuits to the domain of the attorney general.

between the two doctrines in the natural resource area. See M. HALE, *supra* note 20, at 338-39 (King does not have power to convey public rights in navigable waters to private parties because he possesses no power to license a nuisance); W. RODGERS, *HANDBOOK ON ENVIRONMENTAL LAW* § 2.16, at 175, 177 (1977) ("For the most part, public nuisance is the inland version of the public trust doctrine although, not surprisingly, history records public trust theory being applied in the classical nuisance contest, nuisance theory being applied in the classical public trust context, and both theories being applied together.") (footnotes omitted); Deveney, *supra* note 10, at 46.

199. See, e.g., *Village of Wilsonville v. SCA Serv., Inc.*, 86 Ill. 2d 1, 21-22, 426 N.E.2d 824, 834 (1981) (licensed chemical waste dump); *City of Chicago v. Commonwealth Edison*, 24 Ill. App. 3d 624, 631, 321 N.E.2d 412, 418 (1974) (air pollution); *Helmkamp v. Clarke Ready Mix Co.*, 214 N.W.2d 126, 129 (Iowa 1974) (noise and air pollution from cement plant); *Wood v. Picollo*, 443 A.2d 1244, 1247 (R.I. 1982) (exposure to toxic chemicals); *Branch v. Western Petroleum, Inc.* 657 P.2d 267, 274 (Utah 1982) (groundwater contamination); *Miotke v. City of Spokane*, 101 Wash. 2d 307, 331, 678 P.2d 803, 816 (1984) (city disposal of raw sewage into waterbody); see also *Miller v. Cudahy Co.*, 21 Env't Rep. Cas. (BNA) 1549, 1571 (D. Kan. 1984) ("Elements of a public nuisance also mingle in this controversy, because the pollution released by the defendants has wrought substantial damage to a precious natural resource.").

200. "Some courts have shown a tendency . . . to treat substantial interference with . . . established principles of conservation of natural resources as amounting to a public nuisance. [The *Restatement* language] is not intended to set restrictions against developments of this nature." RESTATEMENT (SECOND) OF TORTS § 821B comment e (1977). Many commentators have promoted use of nuisance doctrine to further environmental protection and resource conservation goals. See, e.g., Bryson & Macbeth, *Public Nuisance, The Restatement (Second) of Torts, and Environmental Law*, 2 *ECOLOGY L.Q.* 241, 281 (1972); Warren, *Nuisance Law as an Environmental Tool*, 7 *WAKE FOREST L. REV.* 211, 227-29 (1971); Comment, *Obstruction of Sunlight as a Private Nuisance*, 65 *CALIF. L. REV.* 94, 106 (1977); Comment, *Federal Jurisdiction, Environmental Law, Nuisance, State Ecological Rights Arising Under Federal Common Law*, 1972 *WIS. L. REV.* 597, 612.

201. See generally PROSSER AND KEETON, *supra* note 195, at 619-20.

202. A recent case is illustrative. In *Miller v. Cudahy Co.*, 21 Env't Rep. Cas. (BNA) 1549 (D. Kan. 1984), the district court awarded 33 plaintiffs—farmers and their families—\$3 million in damages for harm caused to area groundwaters by a salt company. The court ruled that the plant was primarily a private nuisance, but that "[e]lements of a public nuisance also mingle in th[e] controversy." See *id.* at 1571. The court added that the defendant company was liable for an additional \$10 million in punitive damages. See *id.* at 1573.

Rather, the rule in most jurisdictions has been that a private citizen must allege some "special injury" to maintain a public nuisance action.²⁰³ Although courts have occasionally dismissed public nuisance lawsuits brought by citizens for lack of special injury,²⁰⁴ courts generally have relaxed the injury requirement, much as the Supreme Court has relaxed the "generalized grievance" limitation on standing in environmental cases.²⁰⁵ Some courts rely on the relationship of public nuisances to private nuisances to minimize the "special injury" requirement. Specifically, these courts hold that a citizen who can allege a private nuisance injury satisfies any special injury requirement necessary to maintain a public nuisance action.²⁰⁶ In any event, the clear trend in the law, endorsed by the *Restatement*, is to dispose of any special injury requirement when the private litigant's public nuisance action is seeking to enjoin or abate the nuisance, as opposed to seeking money damages.²⁰⁷ Private litigants need satisfy only the normally applicable standing requirements,²⁰⁸ which the courts, as discussed above, have relaxed in environmental cases.²⁰⁹

203. See, e.g., *City of Birmingham v. City of Fairfield*, 375 So. 2d 438, 441 (Ala. 1979); *Helix Land Co. v. City of San Diego*, 82 Cal. App. 3d 932, 949, 147 Cal. Rptr. 683, 692-93 (1978); *Mamolella v. First Bank*, 97 Ill. App. 3d 579, 582, 423 N.E.2d 204, 206 (1981); *Stop & Shop Co. v. Fisher*, 387 Mass. 889, 894, 444 N.E.2d 368, 372 (1983); *Raymond v. Southern Pac. Co.*, 259 Or. 629, 634, 488 P.2d 460, 463 (1971); *Solar Salt Co. v. Southern Pac. Transp. Co.*, 555 P.2d 286, 288 (Utah 1976); *Roy v. Farr*, 128 Vt. 30, 37, 258 A.2d 799, 803 (1969).

204. See, e.g., *Town of Rome City v. King*, 450 N.E.2d 72, 77 (Ind. Ct. App. 1983); *Frady v. Portland Gen. Elec. Co.*, 55 Or. App. 344, 358, 637 P.2d 1345, 1349 (1981). Some courts similarly apply a special injury standing requirement to public trust litigation brought by private parties. See, e.g., *Kerpelman v. Board of Pub. Works*, 261 Md. 436, 443, 276 A.2d 56, 60 (1971); see also W. RODGERS, *supra* note 198, at 177 & n.52.

205. Among its stated prudential limitations on standing, the Supreme Court has stated that "when the asserted harm is a 'generalized grievance' shared in substantially equal measure by all or a large class of citizens, that harm alone normally does not warrant exercise of jurisdiction." See *Warth v. Seldin*, 422 U.S. 490, 499 (1975). This limitation appears to have carried little weight in the Court's standing cases concerning environmental rights. See *United States v. SCRAP*, 412 U.S. 669, 687 (1973) ("standing is not to be denied simply because many people suffer the same injury"); *supra* text accompanying notes 190-91.

206. See, e.g., *B & W Management, Inc. v. Tasea Inv. Co.*, 451 A.2d 879, 882 (D.C. 1982); *City of Monticello v. Rankin*, 521 S.W.2d 79, 80-81 (Ky. 1975); see also *Miller v. Cudahy*, 21 Env't Rep. Cas. (BNA) 1549, 1571 (D. Kan. 1984), which is discussed *supra* at note 202; *Miotke v. City of Spokane*, 101 Wash. 2d 307, 332, 678 P.2d 803, 817 (1984).

207. "In order to . . . enjoin or abate the public nuisance, one must . . . have standing to sue as a representative of the general public, as a citizen in a citizen's action or as a member of a class in a class action." *RESTATEMENT (SECOND) TORTS* § 821C(2) (1977). See generally W. RODGERS, *supra* note 198, at 105-06.

208. See, e.g., *Akau v. Olohana Corp.*, 65 Hawaii 383, 386-90, 652 P.2d 1130, 1133-35 (1982); see also Comment, *Public Nuisance: Standing to Sue Without Showing "Special Injury,"* 26 U. FLA. L. REV. 360, 365-66 (1974) (discussing Florida decision relaxing standing requirements).

209. See *supra* text accompanying notes 187-94.

Finally, underlying the rise of nuisance law is a basic judicial reformulation of the relationship between tort and property law in the natural resources context. This reformulation is inconsistent with the general thrust of the public trust doctrine. In the past, the outcome in nuisance cases was often predetermined by judicial reliance on property-based rules that purportedly dictated the rights of various parties in the use of their respective property.²¹⁰ With increasing frequency, courts have abandoned rigid property-based rules in favor of balancing the competing considerations, including both individual equities and broad societal interests, of each party's legal position.²¹¹ A party's entitlement to the protection of nuisance law no longer turns so much on the possession of an identifiable "legal interest" that has been harmed. Totally apart from these legal labels, the precise gravity and nature of the individual's injury is relevant to the judicial inquiry. Just such an approach to nuisance law recently led one court to conclude that an individual's economic interest in access to solar energy merited some protection in a nuisance action brought against a neighbor who threatened to cut off access.²¹² Previously, courts had ruled that

210. See Coquillette, *supra* note 10, at 769-72; Horwitz, *The Transformation in the Concept of Property in American Law, 1780-1860*, 40 U. CHI. L. REV. 248, 249 (1973).

211. With industrialization and urbanization, conflicts occurred increasingly between property owners and it became clear that applying absolute property rules could no longer resolve those conflicts. It was necessary to consider the interest of society and not just the private parties in formulating a legal rule. See Coquillette, *supra* note 10, at 778-79; Donahue, *The Future of the Concept of Property Predicted from Its Past*, in PROPERTY: NOMOS XXII 28, 53 (J. Pennock & J. Chapman eds. 1980); Horwitz, *supra* note 210, at 290; Philbrick, *Changing Conceptions of Property in Law*, 86 U. PA. L. REV. 691, 724 (1938). See generally Calabresi & Melamed, *Property Rules, Liability Rules & Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972) (various legal relationships integrated in a model that suggests solutions to pollution problem). A demise in the formalistic approach to the protection of contractual rights occurred for many of the same reasons. See Note, *Tortious Interference of Contractual Relations in the 19th Century: The Transformation of Property, Contract, and Tort*, 93 HARV. L. REV. 1510, 1537-38 (1980); see also Holmes, *Privilege, Malice, and Intent*, 8 HARV. L. REV. 1, 3 (1894) (external standards rising in tort law). There too, the courts began to balance the competing interests, including the interests of society in alternative resolutions, to resolve conflicts. See Carpenter, *Interference with Contract Relations*, 41 HARV. L. REV. 728, 745-46 (1928). In the past, this balance has often led to denial of injunctions against polluting businesses because of the adverse socioeconomic consequences of a shutdown, see, e.g., *Boomer v. Atlantic Cement Co.*, 26 N.Y.2d 219, 228, 257 N.E.2d 870, 875, 309 N.Y.S.2d 312, 319 (1970), but changing social attitudes toward pollution have rendered shutdown more palatable, see, e.g., *Aberdeen v. Wellman*, 352 N.W.2d 204, 205-06 (1984) (permanent injunction on operation of gravel and road construction company as public nuisance).

212. See *Prah v. Maretti*, 108 Wis. 2d 223, 240, 321 N.W.2d 182, 191 (1982). In extending the protection of nuisance law to solar access, the *Prah* court considered the three policy justifications that historically had justified a denial of protection and found each obsolete. All three related more to the concerns of society than to those of the individual. The first concern was the traditional notion that a landowner had the right to use her property as long as she did not cause physical damage to a neighbor. The *Prah* court rejected that rationale, looking to how "society has increasingly regulated the use of land by the landowner for the general welfare." See *id.* at 236, 321 N.W.2d at 189. The second

nuisance law provided no protection because an individual had no legally protected interest in solar energy.²¹³

The public trust doctrine, however, is still rooted in the old property-law terminology now being rejected by modern nuisance analysis. Consequently, as with standing, relying on the doctrine is not only unnecessary when nuisance law could better achieve the same objectives, but also the doctrine's formalism is theoretically inconsistent with the advances in tort law that aid environmental protection and resource conservation goals.

C. *Conceptions of Sovereignty and Property and the Public Trust Doctrine*

Advances in standing and nuisance law, however, do not go to the heart of the public trust doctrine's shortcomings. At bottom, the trust doctrine is premised on a view of the nature and role of the sovereign that has little in common with the current style of government, at least in the areas of environmental protection and natural resource conservation. In particular, the doctrine assumes that absent its sovereign ownership and trustee duties, governmental powers over important natural resources would be inadequate and governmental accountability to the public for its decisions affecting those resources too limited. Recent developments in natural resources and environmental law question both of these assumptions.

To be sure, governmental power to protect the environment is not currently absolute, nor is governmental accountability for its environmentally destructive activities total. A negative assessment of the continuing utility of the public trust doctrine does not require either such extreme result. The relevant inquiry looks to the net impact of the doctrine. Here, that means asking whether in the face of recent changes in the nature and scope of governmental power, the doctrine continues to play a significant, independent role. Here again, the trust doctrine falls short.

justification was that society historically had given little weight to the value of sunlight, viewing it merely as a matter of aesthetic enjoyment. The court rejected this reason and concluded that sunlight had substantial value to society as an energy source. *See id.*, 321 N.W.2d at 189. Finally, the court noted that although society historically had favored unrestricted land development, "the policy of favoring unhindered private development in an expanding economy is no longer in harmony with the realities of our society." *See id.* at 237, 321 N.W.2d at 190.

213. *Fontainebleau Hotel Corp. v. Forty-Five Twenty-Five, Inc.*, 114 So. 2d 357, 359 (Fla. Dist. Ct. App. 1959):

There being, then, no legal right to the free flow of light and air from the adjoining land, it is universally held that where a structure serves a useful and beneficial purpose, it does not give rise to a cause of action, either for damages or for an injunction under the maxim *sic utere tuo ut alienum non laedas*, even though it causes injury to another by cutting off the light and air and interfering with the view that would otherwise be available over adjoining land in its natural state, regardless of the fact that the structure may have been erected partly for spite.

1. *The Rise of the Modern Police Power State*

a. *Expansion of Police Power Authority*

First, there currently is little room or need for the public trust doctrine to play a meaningful role in promoting sovereign authority over environmental quality. The trust doctrine arose at a time, long since gone, when sovereign power depended on ownership and, accordingly, when courts interpreted the scope of governmental police powers quite narrowly.²¹⁴ Then, the validity of a governmental police power restriction that adversely affected private property expectations depended on fictional categories. For example, if a court deemed the private property a "qualified"²¹⁵ property or a property "affected with the public interest,"²¹⁶ then the court would uphold the governmental restriction, regardless of the restriction's impact.²¹⁷ Courts reasoned that these properties were the subject of a limited grant from the private party back to the government.²¹⁸ Courts similarly saw governmental control over natural resources as resting on sovereign ownership of those resources.²¹⁹

Today, the extent of sovereign authority does not turn on such strained fictions of property law, which are all contemporaries of the public trust doctrine.²²⁰ It is now well settled that the police power is the most fundamental source of governmental authority to prevent needless environmental harm and related risks to human health and welfare. To be sure, the

214. See Rosen, *supra* note 16, at 610-12; see also Selvin, *supra* note 10, at 1404-05 (trust doctrine evolved because of limits to power of eminent domain). See generally H. HARTOG, PUBLIC PROPERTY AND PRIVATE POWER (1983) (describing how during eighteenth century basis of municipal authority shifted from property rights to legislative power).

215. E. FREUND, THE POLICE POWER § 402, at 422 (1904). For example, courts considered dogs to be "qualified property" and on that basis upheld governmental police power measures requiring licenses for dogs and allowing extermination without legal process or a right of damages for failure to comply with those requirements. See, e.g., *Sentell v. New Orleans & C. R.R.*, 166 U.S. 698, 701-02 (1897); *Mayor of Hagerstown v. Witmer*, 86 Md. 293, 300, 301 (1897). See generally E. FREUND, *supra*, § 21, at 16-17. The notion of qualified property in natural resources is also expressed in 2 W. BLACKSTONE, COMMENTARIES *395.

216. E. FREUND, *supra* note 215, § 402, at 422.

217. When, therefore, one devotes his property to a use in which the public has an interest, he, in effect, grants the public an interest in that use and must submit to public control for the common good, to the extent of the interest he has thus created. See *Munn v. Illinois*, 94 U.S. 113, 126 (1877). See generally E. FREUND, *supra* note 215, §§ 372-88, at 380-401.

218. *Munn v. Illinois*, 94 U.S. 113, 126 (1877).

219. See, e.g., *Geer v. Connecticut*, 161 U.S. 519, 527-29 (1896) (state power over wildlife a matter of sovereign ownership).

220. See, e.g., *Sporhase v. Nebraska ex rel. Douglas*, 458 U.S. 941, 951, 954-56 (1982) (rejecting characterization of state power over water resources as matter of ownership in favor of state police power view); *Hughes v. Oklahoma*, 441 U.S. 322, 333-38 (1979) (same for wildlife); see also *Maddox v. Georgia*, 252 Ga. 198, 199, 312 S.E.2d 325, 327 (state law barring sale or purchase of game fish, even if cultivated in private pond, does not amount to unconstitutional deprivation of property), *cert. denied*, 105 S. Ct. 93 (1984).

"police power" too could be described as a legal fiction, but unlike the trust doctrine, the police power is a live fiction that reflects current legal analysis and social values. The extent of police power authority does not depend on the application of formalistic categories of property law, but ultimately on the precise nature of both the governmental interest and the private property expectations at odds in a particular case.

Increased awareness of the acute condition of modern resource allocation and environmental pollution problems provided the most recent trigger for police power expansion, but its rise in importance has much earlier and pervasive origins.²²¹ Most importantly, expanding governmental police power is but one significant expression of the dramatic shift that occurred during this century concerning the appropriate role of government.²²² This country was in large part founded by individuals with a narrow view of government and a firm belief that the sphere of governmental activity was distinct from and must not tread on the private realm of the individual. At the core of this private realm was the exercise of private property rights.²²³ The sanctity of these rights derived from various philosophic and economic theories, ranging from those embracing natural law²²⁴ or a Kantian/Hegelian view of the relation of property to individual personality²²⁵ and dominion,²²⁶ to Benthamite utilitarianism²²⁷ and the

Indeed, the repudiation of these fictions seriously questions the continuing vitality of the public trust doctrine because they were all so closely related. The Supreme Court derived its notion of "property affected with a public interest" from the same source in which it found the public trust doctrine—the writings of Lord Chief Justice Hale, including *De Jure Maris*, which is discussed *supra* at note 20. Compare *Munn v. Illinois*, 94 U.S. 113, 125-30 (1877) with *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 456-58 (1892). Public trust property, moreover, was often referred to as "qualified" property. See E. FREUND, *supra* note 215, § 404, at 423. Those cases, now overturned by the Supreme Court, see *infra* note 470, that characterized state power as resting on sovereign ownership of the resource, invariably relied on the same principles of Roman and French law upon which the public trust doctrine relies. Compare *Geer v. Connecticut*, 161 U.S. 519, 523-24 (1896), with Comment, *supra* note 3, at 763-64; Sax, *supra* note 3, at 475; Sax, *supra* note 10, at 185-88; Stevens, *supra* note 10, at 195-98. For further discussion of the doctrine's continuing vitality, see *infra* text accompanying notes 469-76.

221. See *infra* text accompanying note 231.

222. Cf. Stewart & Sunstein, *Public Programs and Private Rights*, 95 HARV. L. REV. 1193, 1204 (1982). See generally J. HURST, *LAW AND SOCIAL ORDER IN THE UNITED STATES* 36-41 (1977) ("The focus changed from enabling organized action to injecting more public management or supervision of affairs and providing more sustained, specialized means of defining and enforcing public policy.").

223. See Philbrick, *supra* note 211, at 712-13.

224. See *id.*; Oakes, "Property Rights" in *Constitutional Analysis Today*, 56 WASH. L. REV. 583, 624 (1981).

225. See L. BECKER, *PROPERTY RIGHTS* 62-64 (1977); Oakes, *supra* note 224, at 587; Soper, *On Relevance of Philosophy to Law: Reflections on Ackerman's Private Property and the Constitution*, 79 COLUM. L. REV. 44, 64 (1979); see also Smith, *The Unique Nature of the Concept of Western Law*, in *THE WESTERN IDEA OF LAW* 35 (J. Smith & D. Weisstub eds. 1983) (in archaic law, property was manifestation or extension of personality).

226. See Oakes, *supra* note 224, at 587, 624; Philbrick, *supra* note 211, at 710-11.

227. See Philbrick, *supra* note 211, at 710-11.

laissez faire beliefs of Adam Smith.²²⁸ In all events, the basic function of government was quite narrow—to preserve private property by providing security from domestic crime and protection from foreign invasion.²²⁹

The economic and wartime turmoil of the first half of the 1900's, spurred by rapid industrialization and social urbanization, severely eroded this traditional view of government²³⁰ and in the process laid the foundation for the developments in environmental law that occurred in the last decade and a half. Antitrust law and labor law, followed by a host of ambitious New Deal programs, challenged the notion of limited government and sought to infuse new economic theories and social values into the laws.²³¹ The sovereign authority to tax, spend, and regulate formed a powerful triad indispensable to this systematic process.²³² Sovereign power to hold and dispose of its own property served only a relatively minor role in the process.

The environmental protection and natural resource conservation laws of the last fifteen years broke dramatically from the traditional view of limited government and incorporated much of the New Deal vision of the rightful role of government. At the outset, the validity of the newer laws does not, as it did in the past, turn on their furthering narrow health and safety concerns;²³³ courts require only a rational relation to a goal of some "conceivable public purpose,"²³⁴ including, for example, aesthetic values, conservation goals, or public welfare in general.²³⁵ Because environmental and natural resources laws do not always translate easily into

228. *See id.* at 713.

229. J. LOCKE, *OF CIVIL GOVERNMENT: SECOND TREATISE*, 115 (R. Kirk ed. 1955): The supreme power cannot take from any man any part of his property without his own consent. For the preservation of property being the end of government, and that for which men enter into society, it necessarily supposes and requires that the people should have property

See also Frug, *The City as a Legal Concept*, 93 HARV. L. REV. 1059, 1093 (1980); Oakes, *supra* note 224, at 584-86; Philbrick, *supra* note 211, at 713-14.

230. *See generally* H. BERMAN, *LAW AND REVOLUTION: THE FORMATION OF THE WESTERN LEGAL TRADITION* 1-45 (1983).

231. *See* Oakes, *supra* note 224, at 623 (historically hands-off government evolved into New Deal intrusive government); Philbrick, *supra* note 211, at 716.

232. All three types of governmental measures have played significant roles in environmental and natural resources policy. *See infra* text accompanying notes 360-66. Although they are treated differently by the courts, the impact of each is essentially the same: each effectively transfers control of resource development from the private sector to the government. *See* A. CHURCH, *CONFLICTS OVER RESOURCE OWNERSHIP* 7, 9 (1982).

233. *See, e.g.*, E. FREUND, *supra* note 215, § 8; *see also id.* §§ 616-620. Even economic goals, now a common object of police power measures, previously were suspect. *See id.* §§ 12, 15.

234. *See* *Hawaii Hous. Auth. v. Midkiff*, 104 S. Ct. 2321, 2329 (1984); *see also* *Ruckelshaus v. Monsanto Co.*, 104 S. Ct. 2862, 2879-80 (1984).

235. *See, e.g.*, *Agins v. City of Tiburon*, 447 U.S. 255, 261 (1980); *Berman v. Parker*, 348 U.S. 26, 32 (1954); *Village of Euclid v. Ambler Realty Co.* 272 U.S. 365, 386-87 (1926); *see also* Sax, *Some Thoughts on the Decline of Private Property*, 58 WASH. L. REV. 481, 491 (1983).

health and safety goals, especially those of an immediate nature,²³⁶ this substantive expansion in the police power's scope has been extremely important, at least in facilitating the adoption of the laws.

b. Erosion of Private Property

The relationship of the sovereign police power to private property has been marked by the steady erosion of private property's sanctity in the face of the sovereign police power's growth.²³⁷ Events in the first half of this century established certain basic legal principles necessary to this decline, most importantly, the propriety of manipulating property rules to promote evolving social goals.²³⁸ The full import of those principles has begun to take hold only with the developments in the environmental arena over recent years.

The clash between governmental authority and private property rights has been fought over the last century on several constitutional fronts, including the takings, due process, and contract clauses.²³⁹ Invariably, the tests are worded differently,²⁴⁰ but the basic issue at stake is essentially the same: the degree to which the government may interfere with privately

236. For example, commentary at the beginning of this century suggests that conservation of natural resources and protection of visual beauty might well have fallen outside the traditional health and safety confines of the police power. *See, e.g.*, E. FREUND, *supra* note 215, §§ 12-13, 15.

237. *See generally* B. ACKERMAN, *PRIVATE PROPERTY AND THE CONSTITUTION* 1-5 (1977) (discussing whether just compensation clause of Constitution is basically sound or whether it is ripe for change; determination turns on whether clause is viewed from a scientific policymaker's perspective or from ordinary observer's perspective); H. BERMAN, *supra* note 230, at 36-37 (Western law experiencing a break with its emphasis on private property and moving toward emphasis on state and social property).

238. *See Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 387 (1926):

Regulations, the wisdom, necessity and validity of which, as applied to existing conditions, are so apparent that they are now uniformly sustained, a century ago, or even half a century ago, probably would have been rejected as arbitrary and oppressive. Such regulations are sustained, under the complex conditions of our day And in this there is no inconsistency, for while the meaning of constitutional guaranties never varies, the scope of their application must expand or contract to meet the new and different conditions which are constantly coming within the field of their operation. In a changing world, it is impossible that it should be otherwise.

See also A. CHURCH, *supra* note 232, at 11-12; Cohen, *Property and Sovereignty*, 13 CORNELL L.Q. 8, 22-23 (1927); Philbrick, *supra* note 211, at 695, 696; Sax, *Why We Will Not (Should Not) Sell the Public Lands: Changing Conceptions of Private Property*, 1983 UTAH L. REV. 313, 325-26; Yandle, *Resource Economics: A Property Rights Perspective*, 5 J. ENERGY L. & POL'Y 1, 2-8 (1983).

239. *See* Alexander, *The Concept of Property in Private and Constitutional Law: The Ideology of the Scientific Turn in Legal Analysis*, 82 COLUM. L. REV. 1545, 1555-60 (1982) (describing Ackerman thesis in B. ACKERMAN, *supra* note 237).

240. The judicial due process inquiry asks whether the challenged governmental measure is rationally related to a legitimate governmental purpose. *See Exxon Corp. v. Governor of Md.*, 437 U.S. 117, 124-25 (1978). To determine whether a taking has occurred, the

held expectations.²⁴¹ Because the taking issue has been the most pervasive (and elusive) throughout this century, the context of that constitutional clause best highlights the shift in governmental authority.

When the legitimate scope of the police power was quite narrow and was essentially confined to restricting activities that were clearly harmful or noxious,²⁴² courts had little difficulty disposing of takings or comparable constitutional challenges. The right of private individuals to exercise their property rights and so create common-law nuisances hardly appeared constitutionally sacrosanct.²⁴³ The relative equities implicated by the clash of public and private values became less clear, however, as the scope of legitimate governmental police regulation broadened during this century.²⁴⁴

This shift in the equities is illustrated by the classic confrontation between Justice Holmes and Justice Brandeis in the most celebrated tak-

court considers additionally the precise character of the governmental interference, whether it is a "physical invasion" by the government or the result of a "public program adjusting the benefits and burdens of economic life" *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978). The court next considers the economic impact of the challenged governmental action and, in the case of a public program, determines whether any "economically viable use" of the property remains. *Agins v. City of Tiburon*, 447 U.S. 255, 260 (1980) (quoting *Penn Central*, 438 U.S. at 138 n.36). In a contract clause challenge, the Court asks whether the challenged law serves a legitimate public purpose and does not simply provide a benefit to "special interests." See *Energy Reserves Group, Inc. v. Kansas Power & Light Co.*, 459 U.S. 400, 412 (1983). See generally *United States Trust Co. v. New Jersey*, 431 U.S. 1, 21-32 (1977) (discussing limitations contract clause places on police power to provide transportation).

241. *Oakes*, *supra* note 224, at 621. Indeed, legal academics currently are debating the proper constitutional basis for challenging governmental measures that a party believes are unduly oppressive. Some commentators believe that the due process clause and not the takings clause is the proper basis upon which to attack governmental police power regulation. See *Sterk, Government Liability for Unconstitutional Land Use Regulation*, 60 IND. L.J. 113, 124 (1985); see also *Stoebe, Police Power, Takings, and Due Process*, 37 WASH. & LEE L. REV. 1057, 1058-61, 1097-99 (1980). Others attack these proposals as advocating an unwarranted and unworkable return to substantive due process. See *Kelso, Substantive Due Process as a Limit on Police Power Regulatory Takings*, 20 WILLAMETTE L. REV. 1, 41-42 (1984).

242. See *supra* text accompanying note 233.

243. See *Mugler v. Kansas*, 123 U.S. 623, 668-69 (1887):

A prohibition simply upon the use of property for purposes that are declared, by valid legislation, to be injurious to the health, morals, or safety of the community, cannot, in any just sense, be deemed a taking or an appropriation of property for the public benefit. Such legislation does not disturb the owner in the control or use of his property for lawful purposes . . . , but is only a declaration by the State that its use by any one, for certain forbidden purposes, is prejudicial to the public interests. . . . The exercise of the police power by the destruction of property which is itself a public nuisance, or the prohibition of its use in a particular way, whereby its value becomes depreciated, is very different from taking property for public use

244. See *Wickersham, The Police Power, A Product of the Rule of Reason*, 27 HARV. L. REV. 297, 315 (1914) ("[T]he pressure is very great on the part of social reformers to compel legislation which transcends constitutional restrictions, and seeks justification under the elastic boundaries of the police power.").

ings case, *Pennsylvania Coal Co. v. Mahon*.²⁴⁵ *Pennsylvania Coal* involved a constitutional challenge to a state law that prevented the owner of subsurface coal rights from mining coal in a manner that caused the surface estate to subside.²⁴⁶ The state legislature intended the restriction to override any prior express agreements between the surface and subsurface estate owners concerning the rights of the latter to mine even in the event of subsidence.²⁴⁷ In the majority opinion, which struck down the state law as an unconstitutional taking, Justice Holmes revealed his great concern with the expansion of governmental intrusions into the marketplace of private property. Holmes apparently questioned whether the law served any public purpose at all,²⁴⁸ and expressed his concern with the tendency of government to erode gradually private property interests in the name of the collective good or public interest.²⁴⁹ In sharp contrast, Justice Brandeis, writing for the dissent, had no difficulty accepting the appropriateness of the governmental action.²⁵⁰ In his view, the government could interfere with private agreements when those agreements substantially implicated public health and safety concerns.²⁵¹ The parties' private contract to the contrary could not bind the legislature and impede its power to enact the law.²⁵²

Although *Pennsylvania Coal* is nominally still good law,²⁵³ the underlying

245. 260 U.S. 393 (1922). For an excellent recent discussion of the case, see Rose, *Mahon Reconstructed: Why the Takings Issue Is Still a Muddle*, 57 S. CAL. L. REV. 561 (1984).

246. The "statute forb[ade] the mining of anthracite coal in such way as to cause the subsidence of . . . any structure used as a human habitation" 260 U.S. at 412-13.

247. In *Pennsylvania Coal*, the Mahons' title to the surface originated in a deed from the Pennsylvania Coal Company, in which the company had retained all subsurface mineral rights and the Mahons had specifically waived any right to claims based on subsidence. See *id.* at 412.

248. See *id.* at 413-14 ("This is the case of a single private house [U]sually in ordinary private affairs the public interest does not warrant much of this kind of interference. . . . The damage is not common or public [I]t [is] clear that the statute does not disclose a public interest sufficient to warrant so extensive a destruction").

249. See *id.* at 415 ("[T]he natural tendency of human nature is to extend the [police power] qualification [of private property] more and more until at last private property disappears. But that cannot be accomplished in this way under the Constitution of the United States."). Justice Holmes' ruling may have been influenced by contemporaneous writings of Roscoe Pound, who expressed analogous concerns. See Pound, *The End of Law as Developed in Legal Rules and Doctrines*, 27 HARV. L. REV. 195, 225-34 (1914); *infra* notes 428-35 and accompanying text.

250. Compare Justice Brandeis' favorable view of the police power in *Pennsylvania Coal* with his unfavorable view of notions of heightened sovereign trust authority to reallocate water resources, as expressed in a law review article he coauthored in 1888. See Warren & Brandeis, *The Wuttapa Pond Cases*, 2 HARV. L. REV. 195, 211 (1888); *infra* note 465.

251. See 260 U.S. at 417 ("[R]estriction imposed to protect the public health, safety or morals from dangers threatened is not a taking. The restriction here in question is merely the prohibition of a noxious use.").

252. See *id.* at 420 ("If public safety is imperiled, surely neither grant, nor contract, can prevail against the exercise of the police power.").

253. The Court still consistently cites *Pennsylvania Coal* in its more recent takings cases.

rationale of modern takings law is more consistent with the views of the *Pennsylvania Coal* dissenters.²⁵⁴ While unable to develop any "settled formula" to resolve takings challenges,²⁵⁵ the current Supreme Court's ad hoc inquiry into the "justice and fairness" considerations of particular cases reflects a broad acceptance of governmental police power measures that "impair or even destroy recognized property interests."²⁵⁶ Whether the governmental restriction treats similarly situated property alike,²⁵⁷ balances the benefits and burdens of a civilized society,²⁵⁸ or promises

See, e.g., *Kaiser Aetna v. United States*, 444 U.S. 164, 178 (1979); *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 127-28 (1978).

254. For example, recently the Court explicitly rejected the rationale, basic to *Pennsylvania Coal*, that a takings inquiry can focus on particular segments of the property rather than the property as a whole. In *Penn Central* the Court refused to focus on just the interference of a challenged historic preservation law on the full use of air rights, dismissing any contrary contention that might be based on *Pennsylvania Coal*. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 130 & n.27 (1978); see also *Andrus v. Allard*, 444 U.S. 51, 66 (1979) ("[T]he destruction of one 'strand' of the bundle [of property rights] is not a taking, because the aggregate must be viewed in its entirety."). Similarly, *Pennsylvania Coal* appears to endorse a judicial takings inquiry that focuses solely on economic impact: "[W]hile property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking." See 260 U.S. at 415. In recent decisions, however, the Court has expressly held that impact alone cannot establish an unconstitutional taking. See *infra* text accompanying notes 262-66. In light of all these subsequent qualifications, it is not surprising to see courts today discounting *Pennsylvania Coal* and upholding against takings challenges police power measures that impose restrictions remarkably similar to those at issue in *Pennsylvania Coal*. See, e.g., *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 581 F. Supp. 511, 513 (W.D. Pa. 1984). But see *Commonwealth v. Stearns Coal & Lumber Co.*, 678 S.W.2d 378, 381 (Ky. 1984) (suggesting that state wild and scenic rivers law did not effect a taking of coal miner's land only because courts prevented full execution of law), *appeal dismissed*, 105 S. Ct. 3549 (1985).

255. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978); *Agins v. City of Tiburon*, 447 U.S. 255, 260-61 (1980).

256. See *Andrus v. Allard*, 444 U.S. 51, 65 (1979); see also *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 125 (1978) ("[I]n instances in which a state tribunal reasonably concluded that 'the health, safety, morals, or general welfare' would be promoted by prohibiting particular contemplated uses of land, this Court has upheld land-use regulations that destroyed or adversely affected recognized real property interests . . .") (quoting *Nectow v. City of Cambridge*, 277 U.S. 183, 188 (1928)).

257. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 133 n.29, 135 n.32 (1978).

258. See *id.* at 124. This criterion is reminiscent of the Court's scrutiny of a state tax under the commerce clause to determine whether the tax creates an impermissible burden on interstate commerce. The dispositive issue is whether the state has given anything for which it can ask return, not whether some rough equivalence exists between what the state has given and what it is asking. See *Commonwealth Edison v. Montana*, 453 U.S. 609, 625-29 (1981); *General Motors Corp. v. Washington*, 377 U.S. 436, 440-41 (1964). As the Court has stated in the context of a constitutional challenge to the amount of a tax:

A tax is not an assessment of benefits. It is, as we have said, a means of distributing the burden of the cost of government. The only benefit to which the taxpayer is constitutionally entitled is that derived from his enjoyment of the privileges of living in an organized society, established and safeguarded by the devotion of taxes to public purposes.

a general "reciprocity of advantage" among private parties²⁵⁹ are prime factors for judicial consideration. Economic impact alone is insufficient to show a taking²⁶⁰ and lost profits are a "slender reed" upon which to base a takings claim.²⁶¹

Moreover, even though the Court considers the impact of the

Carmichael v. Southern Coal & Coke Co., 301 U.S. 495, 521-22 (1937); see also *Pittsburgh v. Alco Parking Corp.*, 417 U.S. 369, 373 (1974).

259. See *Pennsylvania Coal*, 260 U.S. at 415. Interestingly, Justice Rehnquist, dissenting in *Penn Central* and relying on Holmes majority opinion in *Pennsylvania Coal*, apparently was willing to read into the takings clause an "exception" for "prohibition[s that] appl[y] over a broad cross section of land and thereby 'secure an average reciprocity of advantage.'" *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 147 (1978) (Rehnquist, J., dissenting) (quoting *Pennsylvania Coal*, 260 U.S. at 415). Ironically, had the Court adopted the view of the dissenters, which also included an exception for police power measures that forbid uses that are "dangerous to the safety, health, or welfare of others," see 438 U.S. at 145 (Rehnquist, J., dissenting), environmental regulations might have fared extremely well, even better than under the takings formulation Justice Brennan had to adopt to uphold the historic landmark designation at issue in *Penn Central*. Most environmental restrictions apply to a broad cross section of natural resources and thus guarantee precisely the reciprocity Justice Rehnquist apparently endorsed. In contrast, under the takings analysis in Justice Brennan's majority opinion, the takings clause has no such exceptions, even for police power measures that prohibit noxious uses. See 438 U.S. at 133-34 n.30. Under the *Penn Central* majority view, it is not even clear, for instance, that an environmental protection measure prohibiting a traditional noxious use would survive a takings challenge if it "denies an owner *economically viable* use" of the property. See *Agins v. City of Tiburon*, 447 U.S. 255, 260 (1980) (emphasis added). Justice Brennan apparently based his rejection of the reciprocity criterion on his concern that it would result in the striking down of laws that burdened certain individuals more than others. In his view, "[l]egislation designed to promote the general welfare commonly burdens some more than others." See 438 U.S. at 133.

260. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 131 (1978).

261. *Andrus v. Allard*, 444 U.S. 51, 66 (1979) ("Prediction of profitability is essentially a matter of reasoned speculation that courts are not especially competent to perform. Further, perhaps because of its very uncertainty, the interest in anticipated gains has traditionally been viewed as less compelling than other property-related interests."); see also *Williamson County Regional Planning Comm'n v. Hamilton Bank*, 105 S. Ct. 3108 n.12, 3119-20 (1985) (suggesting that "economic profitability" of development of restricted parcel "in light of previous reliance expenditures" not correct touchstone for takings analysis). But see *Sax, Takings, Private Property, and Public Rights*, 81 YALE L.J. 149, 151 n.7 (1971) (right to profit of highest concern in takings analysis). Consideration of economic impact and profitability is especially problematic now that government plays such a substantial function in the national economy. In myriad ways, the government takes actions that affect the relative value of private property. There is no suggestion that an unconstitutional taking has occurred when the result is a reduction in value. See *Donahue*, *supra* note 211, at 30 (inflation does not directly affect traditional property rights, privileges, or powers). Judicial appreciation of the current role of government is also reflected in recent takings cases in which the Court has considered the beneficial impacts of the governmental action together with the harmful impact in evaluating the overall economic impact. See *Agins v. City of Tiburon*, 447 U.S. 255, 262 (1980) ("The zoning ordinances benefit the appellants as well as the public by serving the city's interest in assuring careful and orderly development In assessing the fairness of the zoning ordinance, these benefits must be considered along with any diminution in market value that the appellants might suffer.").

challenged governmental measure on reasonable private investment-backed expectations,²⁶² it has recently sharply limited the import of this countervailing consideration. In *Ruckelshaus v. Monsanto Co.*,²⁶³ a 1984 decision, the Court announced a rule of law which, read broadly, suggests that "reasonable investment-backed expectations" cannot exist in activities that the government may declare contrary to environmental protection and resource conservation goals.²⁶⁴ In *Monsanto* the Court held that when parties engage in an area that they know is of public concern and regulated by government, they are on notice that the government may regulate in the future. Consequently, they cannot complain when their investments are adversely affected by subsequent regulations.²⁶⁵ The great public concern with private decisions that affect the quality of the natural environment and relative abundance of natural resources apparently would place most environmental legislation within the scope of *Monsanto's* generous rule of

262. See *Ruckelshaus v. Monsanto Co.*, 104 S. Ct. 2862, 2875 (1984); *Kaiser Aetna v. United States*, 444 U.S. at 175 ("reasonable investment backed expectations"); *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978) ("distinct investment-backed expectations").

263. 104 S. Ct. 2862 (1984). This case concerned a takings challenge to the disclosure provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136-136y (1982). The law requires disclosure of trade secrets and other commercial and financial information under certain circumstances. See 7 U.S.C. §§ 136a, 136h (1982).

264. In *Monsanto* the Supreme Court asserted that the factor of "reasonable investment backed expectations" was "so overwhelming" that it did not need to consider either the character of the governmental action or its economic impact on the party claiming the unconstitutional taking. See 104 S. Ct. at 2875. The Court's opinion, however, clearly expresses that its evaluation of the "reasonableness" of the expectation depended on the character of the governmental action. Indeed, the gist of the Court's decision, that any expectations of nondisclosure were unreasonable, was based on the character of the governmental action challenged. The Court stressed that the action involved the regulation of an industry of concern to the public. See *id.* at 2876. The Court also noted that consideration of the economic impact of disclosure should not account for any drop in market value caused by disclosing that the product is harmful; only market losses due to competitive losses would be adverse impacts relevant to a takings determination. See *id.* at 2878 n.15; see also *Energy Reserves Group, Inc. v. Kansas Power & Light Co.*, 459 U.S. 400, 411 (1983) ("In determining the extent of the impairment [to reasonable contractual expectations], we are to consider whether the industry the complaining party has entered has been regulated in the past.').

265. *Monsanto* had submitted information to the federal government under three separate statutory programs because FIFRA was substantially amended in both 1972 and 1978. The Court, therefore, separately considered the reasonableness of *Monsanto's* expectations for each of those three periods. Prior to 1972, the federal law had been primarily just a labeling and licensing statute. See Federal Insecticide, Fungicide, and Rodenticide Act, ch. 125, 61 Stat. 163 (1947). It generally prohibited the disclosure of product formulae, but did not state whether disclosure of health and safety data submitted with a license application would occur. See *id.* §§ 3(c)(4), 8(c), 61 Stat. 163, 167, 170. Between 1972 and 1978, the statute regulated the pesticide industry much more closely, but explicitly prohibited the EPA from disclosing trade secrets and other commercial and financial information. See Federal Environmental Pesticide Control Act of 1972, Pub. L. No. 92-516, § 10(b), 86 Stat. 973, 989. After 1978, the law allowed EPA disclosure under certain circumstances, such as the agency's belief that disclosure was necessary to protect

constructive notice.²⁶⁶ As a result, private property owners adversely affected by the legislation may find little constitutional protection, at least under the takings clause.

In all events, this most recent opinion highlights how the Court's current threshold acceptance of the legitimacy of pervasive governmental regulation undermines expectations in private property rights. In particular, *Monsanto* strongly questions judicial assertions that state law can define the extent of private property rights²⁶⁷ and that federal law cannot preempt those rights.²⁶⁸ The clear thrust of the *Monsanto* opinion is that the takings protection extends only to affected private expectations that are reasonable, which in turn depends largely on the substance of federal law.

c. Significance of the Public Trust Doctrine

With the emergence of this modern police power, the public trust doctrine retains little importance in promoting governmental authority to protect and maintain a healthy and bountiful natural environment. The substantive embrace of legitimate governmental police power goals is no longer narrow; indeed, it is broader and more flexible than the embrace of the trust doctrine both in terms of permissible ends and the natural resources to which it applies.²⁶⁹ The doctrine similarly adds little to the

against unreasonable risk of injury to health or the environment. See 7 U.S.C. §§ 136a, 136h (1982).

For all three periods, the Court based its determination of the reasonableness of Monsanto's expectations on the statutory provisions. Thus, because after 1978 the statute clearly stated that disclosure would occur in certain circumstances, Monsanto could have no reasonable expectation that it would not. 104 S. Ct. at 2875. Similarly, because the statute had made certain guarantees of nondisclosure between 1972 and 1978, the government could not later claim that Monsanto's expectation of confidentiality based on those guarantees was unreasonable with respect to the information Monsanto turned over in that interim period. *Id.* at 2877-78. The most significant aspect of the Court's opinion is its treatment of the pre-1972 period. The Court held that any expectations Monsanto might have had, based on nondisclosure, were unreasonable, although the government had not indicated in the statute that disclosure would be necessary. According to the majority, the pesticide "industry [had] long [been] the focus of great public concern and significant governmental regulation. [Consequently,] the possibility was substantial that the Federal Government . . . would find disclosure to be in the public interest." See *id.* at 2876.

266. See generally Sax, *supra* note 235, at 494 ("We are already so far along in diminishing developmental rights that owners are viewed, in important respects, as already on notice.").

267. See 104 S. Ct. at 2872; see also *Webb's Fabulous Pharmacies, Inc. v. Beckwith*, 449 U.S. 155, 161 (1980); *Board of Regents v. Roth*, 408 U.S. 564, 577 (1972).

268. See 104 S. Ct. at 2878 ("If Congress can 'pre-empt' state property law . . . , then the Taking Clause has lost all vitality.").

269. The public trust doctrine historically applies only to a few natural resources and areas of public importance, such as city streets. See *supra* text accompanying notes 21-55. Only recently has the doctrine expanded beyond those traditional concerns. See *supra* text accompanying notes 85-128. Because of its historical ties, the doctrine is necessarily less flexible than the police power, the mandate of which is purely substantive: the promotion of the public health, safety, morals, and welfare. Professor Sax and other promoters of

degree of governmental immunity from takings challenges to governmental environmental protection and conservation measures. It is generally unnecessary to argue against the challenges on grounds that preexisting sovereign rights survived conveyance of the affected property into private hands or that the government implicitly has reserved certain legal interests. Indeed, entering this sort of legal discourse is risky because then the validity of important governmental measures ultimately depends on judicial acceptance of arguments based on antiquated legal fictions that misfocus the judicial inquiry.²⁷⁰ The Supreme Court has made it quite clear in the context of various constitutional challenges to governmental actions based on trust notions of resource ownership, including the takings clause, that these fictional ownership claims do not change the nature of the Court's constitutional analysis.²⁷¹

Moreover, the public trust tactic is not only risky, it is unnecessary in this regard. Police power authority is well settled and requires no comparable judicial discovery of prior sovereign reservation.²⁷² The government may, pursuant to its police powers, change the rules of the game at a later time.²⁷³ The Supreme Court's *Monsanto* opinion assumes just such continuing regulatory authority.²⁷⁴ To be sure, the Court's analysis of takings challenges to police power measures is far from clear. Still, at least that analysis depends on candid consideration of relevant competing concerns and when applied in recent decisions, the analysis suggests that the courts appreciate the special need for strict, yet evolving, natural resource and environmental protection laws. Since its inception, the public trust doctrine has been premised on the notion that absent title or reserved trust authority, the government would not possess the necessary regulatory

the doctrine acknowledge this essential weakness. See Coquillette, *supra* note 10, at 816-17; Sax, *supra* note 10, at 185-86; see also *infra* text accompanying notes 452-60.

270. The risks inherent in attempting to achieve important policy objectives through a legal fiction such as the public trust doctrine is discussed *infra* text accompanying notes 368-476.

271. See *infra* text accompanying notes 469-75.

272. A primary feature of the public trust doctrine is that the limited original sovereign grant provides the government with continuing authority over the resource. For example, in *National Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 437-40, 658 P.2d 709, 721-23, 189 Cal. Rptr. 346, 358-60, *cert. denied*, 464 U.S. 977 (1983), the California Supreme Court relied on this aspect of the public trust doctrine to support its decision that the water rights Los Angeles had obtained to the feeder streams were not absolute, but were subject to continuing regulation and restriction. To a large extent, the court could have achieved the same result without resorting to the public trust doctrine, simply by relying on existing statutory provisions and the police power authority. See Walston, *The Public Trust Doctrine in the Water Rights Context: The Wrong Environmental Remedy*, 22 SANTA CLARA L. REV. 63, 82 (1982).

273. See generally E. FREUND, *supra* note 215, § 24, at 20.

274. An even more recent decision by the Court, also rejecting a takings challenge to a federal regulatory scheme, rests on a similar rationale. See *United States v. Locke*, 105 S. Ct. 1785, 1798 (1985) ("Claimants . . . take their mineral interests with the knowledge that the Government retains substantial regulatory power over those interests.").

authority to protect important natural resources.²⁷⁵ This original premise clearly is no longer valid.²⁷⁶

This potential for governmental authority absent sovereign ownership or trusteeship interest is not merely academic, but is in large part being realized in environmental and natural resources law. At the federal level, the government has established complex permit schemes that restrict the allowable impact of traditional private property rights on the quality and quantity of essential natural resources, such as air, minerals, certain animal species, surface and subsurface water supplies, and in turn on public health and welfare.²⁷⁷ The federal Clean Air Act, for example, has effectively "zoned" the country into areas of different levels of air quality²⁷⁸ and regulated the operation of sources of air pollution, ranging from industrial plants to private automobiles, in those zones.²⁷⁹

The practical effect of these laws is to superimpose onto the existing scheme of private property obtained in the private marketplace a new set of property rights, the distribution of which the federal government controls. These new rights are often indispensable to meaningful exercise of prior traditional property rights. For example, the Clean Water Act eliminates the right of any person to discharge any substance into waters

275. See, e.g., *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 453 (1892) ("The control of the State for the purposes of the trust can never be lost . . ."); *id.* at 454 ("[L]ands under navigable waterways . . . cannot be placed entirely beyond the direction and control of the State."); *id.* at 455 ("Any grant of this kind is necessarily revocable The ownership of the navigable waters of the harbor and of the lands under them is a subject of public concern to the whole people of the State. The trust . . . is governmental and cannot be alienated . . .").

276. The *Illinois Central* Court apparently regarded the police power, which it agreed was inalienable just as the trust, see *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 453 (1892), as involving only matters such as the "administration of government and the preservation of the peace." See *id.* In contrast, those dissenting from the opinion argued that the majority had jumped the gun in claiming that the state was powerless to protect public rights in the resource. See *id.* at 474 (Shiras, J., dissenting) ("To prevent misapprehension, it may be well to say that it is not pretended in this view of the case that the State can part, or has parted, by contract, with her sovereign powers.").

277. See FIFRA, 7 U.S.C. §§ 136-136y (1982); Natural Gas Act, 15 U.S.C. §§ 717-717z (1982); Toxic Substances Control Act, 15 U.S.C. §§ 2601-2629 (1982); Federal Power Act, 16 U.S.C. §§ 791a-828c (1982); Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361-1407 (1982); Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1543 (1982); Mineral Lands Leasing Act, 30 U.S.C. §§ 181-287 (1982); Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. §§ 1201-1328 (1982); Clean Water Act, 33 U.S.C. §§ 1251-1376 (1982); Safe Drinking Water Act, 42 U.S.C. 300f to 300j-10 (1982); Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6987 (1982); Clean Air Act, 42 U.S.C. §§ 7401-7642 (1982); Powerplant and Industrial Fuel Use Act of 1978, 42 U.S.C. §§ 8301-8484 (1982); Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331-1356 (1982); Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1784 (1982).

278. See 42 U.S.C. §§ 7410, 7470-7479 (1982) (prevention of significant deterioration); *id.* § 7491 (visibility protection); *id.* §§ 7501-7508 (nonattainment areas).

279. See *id.* § 7411 (new source performance standards); *id.* §§ 7521-7551 (motor vehicle emission standards).

of the United States, regardless of impact on water quality, without a permit from the government.²⁸⁰ The undeniable import of this restriction, like similar restrictions in the Clean Air Act²⁸¹ and Safe Drinking Water Act,²⁸² is to provide the government with the power to grant, in the first instance, the essential right to discharge substance.²⁸³ Other statutory restrictions cover a host of private activities, including the use of privately owned oil and natural gas to supply energy,²⁸⁴ the taking of certain animal species or the destruction of their habitat,²⁸⁵ the creation, transportation, use, and disposal of toxic substances²⁸⁶ and hazardous wastes.²⁸⁷

The proliferation of these laws is not confined to the federal government, but extends to state and local governments. Analogues to the federal laws generally exist,²⁸⁸ and in addition, a host of state and local laws regulate private use of natural resources traditionally held more in the domain of those governments.²⁸⁹ The most familiar of these resources is land—the Court has referred to local zoning as the “classic example” of valid police power regulation.²⁹⁰ Even with land, however, the nature and depth of governmental regulation of use is increasingly bold. Land use regulations

280. See 33 U.S.C. §§ 1311(a), 1362(5), 1362(12), 1362(14), 1362(16), 1362(19) (1982). Notably, it is neither just water quality that is increasingly under federal control nor always the executive branch that formulates these new “federal property rights.” In the guise of equitable apportionment decrees, the United States Supreme Court has found itself in the business of assigning rights to interstate waters, based on the Court’s own notions of fairness and efficiency. The Court has held squarely that its decree is not predetermined by preexisting state property laws that provide private rights in the aquatic resource. See, e.g., *Colorado v. New Mexico*, 459 U.S. 176, 183-88 (1982); see also Wiel, *Natural Communism*, 47 HARV. L. REV. 425, 438 (1934). The Court, moreover, has even invited congressional oversight of groundwater overdraft, describing it as a “national” problem. See *Sporhase v. Nebraska ex rel. Douglas*, 458 U.S. 941, 954 (1982).

281. See 42 U.S.C. §§ 7401-7642 (1982).

282. See 42 U.S.C. §§ 300f to 300j-10 (1982).

283. In effect, the government becomes the sole supplier of the resource. See generally Reich, *The New Property*, 73 YALE L.J. 733, 736-37 (1964); Comment, *Markets in Air: Problems and Prospects of Controlled Trading*, 5 HARV. ENVTL. L. REV. 377, 379, 399-401 (1981).

284. See Powerplant and Industrial Fuel Use Act of 1978, 42 U.S.C. §§ 8301-8484 (1982) (restrictions on use of natural gas and oil as fuel in existing and new electric powerplants and major fuel burning installations).

285. See Endangered Species Act of 1973, 16 U.S.C. § 1538 (1982).

286. See Toxic Substances Control Act, 15 U.S.C. §§ 2601-2629 (1982).

287. See Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6987 (1982).

288. Indeed, most of the federal laws contemplate, assist, and sometimes even effectively require a substantial state law role. See, e.g., Clean Water Act, 33 U.S.C. §§ 1251(g), 1281-1299, 1313, 1315, 1319(a), 1342(b), 1370 (1982); Clean Air Act, 42 U.S.C. §§ 7410, 7416 (1982); Solid Waste Disposal Act, 42 U.S.C. §§ 6926, 6929, 6931, 6941-6949 (1982). See generally Currie, *State Pollution Statutes*, 48 U. CHI. L. REV. 27 (1981); see also Stewart, *Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 YALE L.J. 1196, 1196 (1977).

289. Groundwater pollution, for example, is an object of increasing state regulation. See generally T. HENDERSON, J. TRAUBERMAN & T. GALLAGHER, *GROUNDWATER: STRATEGIES FOR STATE ACTION* (Env’tl. Law Inst. 1984).

290. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 125 (1978).

are no longer confined to general designations of residential, industrial, and business zones as in the past,²⁹¹ but now extend much further into the realm of private decisionmaking. Community aesthetics,²⁹² historical preservation,²⁹³ energy conservation,²⁹⁴ architectural norms,²⁹⁵ and open space values²⁹⁶ all are enforced through land use restrictions.

Consequently, regulators increasingly view land itself as a fragile resource, the ecological value of which can be destroyed and the preservation of which is important to both the public at large and ultimately to future generations.²⁹⁷ This perception is in large part responsible for the recent proliferation of laws restricting the conversion or destruction of farmlands²⁹⁸ and protecting wetlands and estuaries.²⁹⁹ Soil loss

291. See generally 1 R. ANDERSON, *AMERICAN LAW OF ZONING* §§ 1.02-.07 (2d ed. 1968 & Supp. 1985); 1 A. RATHKOPF & D. RATHKOPF, *THE LAW OF ZONING AND PLANNING*, §§ 1.01-.24, 2.01-.03 (4th ed. 1985 & Supp. 1985); *Developments in the Law—Zoning*, 91 HARV. L. REV. 1427 (1978) [hereafter cited as *Developments*].

292. See *Village of Belle Terre v. Boraas*, 416 U.S. 1, 9 (1974) (zoning power can legitimately be used to create a "quiet place where yards are wide, people few, . . . and the blessings of quiet seclusion and clear air make the area a sanctuary for people"). See generally *Developments*, *supra* note 291, at 1447-57.

293. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 129 (1979) ("[P]reserving structures and areas with special historic, architectural, or cultural significance is an entirely permissible governmental goal . . .").

294. See Corbett & Hayden, *Local Action for a Solar Future*, 2 SOLAR L. REP. 953, 955-57 (1981).

295. See *Village of Hudson v. Albrecht, Inc.*, 9 Ohio St. 3d 69, 74, 458 N.E.2d 852, 857 (1984) (zoning power includes village code providing architectural review board authority to review application for building permits and to regulate architectural design), *appeal dismissed*, 104 S. Ct. 3503 (1984).

296. See *Agins v. City of Tiburon*, 447 U.S. 255, 261 (1980).

297. See F. BOSSELMAN & D. CALLIES, *THE QUIET REVOLUTION IN LAND USE CONTROL* 314-18 (1971); Bosselman, *Property Rights in Land: New Statutory Approaches*, 15 NAT. RESOURCES J. 681, 681-83 (1975); Houck, *Land Loss in Coastal Louisiana: Causes, Consequences, and Remedies*, 58 TUL. L. REV. 3, 4-12 (1983); Sax, *supra* note 238, at 323-24. Leopold's classic work on an emerging land ethic, published originally in 1949, laid the early foundation for these more recent developments. See A. LEOPOLD, *A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE* 202-04, 214-16 (1968); see also Grossman, *Prime Farmland and the Surface Mining Control and Reclamation Act: Guidance for an Enhanced Federal Role in Farmland Preservation*, 33 DRAKE L. REV. 209, 254-59 (1983-1984) (describing host of federal laws affecting land use). In the past, the apparent solid, unchanging nature of the land resource made it appear to be the paradigm natural resource appropriate for exclusive private ownership. See McDougal, Lasswell, Vlasic & Smith, *The Enjoyment and Acquisition of Resources in Outer Space*, 111 U. PA. L. REV. 521, 572 (1963) [hereinafter cited as *Outer Space*].

298. See generally 1 J. JUERGENSMEYER & J. WADLEY, *AGRICULTURAL LAW* 65-130 (1982); S. REDFIELD, *VANISHING FARMLAND: A LEGAL SOLUTION FOR THE STATES* 95-130 (1984); Rose, *Farmland Preservation Policy and Programs*, 24 NAT. RESOURCES J. 591 (1984); Torres, *Helping Farmers and Saving Farmland*, 37 OKLA. L. REV. 31 (1984).

299. See generally Want, *Federal Wetlands Law: The Cases and The Problems*, 8 HARV. ENVTL. L. REV. 1 (1984).

restrictions³⁰⁰ and bans on corporate farming,³⁰¹ the latter partly based on the belief of poor corporate stewardship of long-term productivity,³⁰² reflect the same general public concern. The upshot is that now even for land, undoubtedly the most central object of private property rights, the legitimate scope of private expectations has been significantly cut back pursuant to state and local police power measures.³⁰³

2. Modern Administrative Law

The tremendous expansion in the nature of sovereign authority and the degree of governmental oversight does more, however, than undercut any meaningful role for the public trust doctrine in promoting governmental authority. The implications of this expansion question the central premise of the trust doctrine's origins—that the doctrine provides a needed legal basis to ensure public accountability for governmental decisions that adversely affect the environment.

Here again, hindsight suggests that the modern public trust thesis is wide of the mark. First, it did not account for developments in ad-

300. See Massey, *Land Use Regulatory Power of Conservation Districts in the Midwestern States for Controlling Nonpoint Source Pollutants*, 33 DRAKE L. REV. 35, 78-91 (1983-1984).

301. For a survey of state laws restricting corporate ownership of farmland, see 1 J. JUERGENSMEYER & J. WADLEY, *supra* note 298, at 146-51.

302. *Absentee Ownership of Farmland: Hearing Before the House Subcomm. on Family Farms, Rural Development, and Special Studies of the Comm. on Agriculture*, 96th Cong., 2d Sess. 20-21 (1980) (testimony of Jim Wolf, Neb. Sandhills Resources, Inc.); *id.* at 32 (testimony of Jo Anne Neuzil, Agri Research and Information Services, Inc.).

303. Commentators argue that a constitutional right to develop land in the United States no longer exists or should no longer exist. See, e.g., Caldwell, *Rights of Ownership or Rights of Use?—The Need for a New Conceptual Basis for Land Use Policy*, 15 WM. & MARY L. REV. 759, 769-73 (1974); Comment, *Regulation of Land Use: From Magna Carta to a Just Formulation*, 23 UCLA L. REV. 904, 905 (1976). Recent judicial decisions upholding state statutes that regulate landowners' rights to use their property certainly support that conclusion. See, e.g., *Graham v. Estuary Properties, Inc.*, 399 So. 2d 1374, 1382 (Fla.), *cert. denied*, 454 U.S. 1083 (1981); *Turnpike Realty Co. v. Town of Dedham*, 362 Mass. 221, 232-35, 284 N.E.2d 891, 898-900 (1972), *cert. denied*, 409 U.S. 1108 (1973); *Just v. Marinette County*, 56 Wis. 2d 7, 22, 26, 201 N.W.2d 761, 770-72 (1972); *cf. Prah v. Maretti*, 108 Wis. 2d 223, 237, 321 N.W.2d 182, 190 (1982). *But see Silva v. Ada Township*, 416 Mich. 153, 160-61, 330 N.W.2d 663, 666 (1982) (preventing natural resource extraction from land invalid absent extremely serious consequences from proposed extraction). Indeed, many landowners today perceive that they benefit from restrictions on development. Bosselman, *supra* note 297, at 682-83; see *supra* note 261. It has long been settled in other countries that private property owners do not possess a right to develop their land. See Lefcoe, *The Right to Develop Land: The German and Dutch Experience*, 56 OR. L. REV. 31, 32-36, 41 (1977); Roberts, *Land Storage—The Swedish Example*, 38 MOD. L. REV. 121, 123-24 (1975); Sax, *supra* note 238, at 324. Of course, traditional notions of private ownership of land are not the only interests currently being undermined. Water rights, especially groundwater rights in the West, increasingly are coming under strict state regulation. Rights once considered absolute under traditional common-law principles are fast becoming revocable gratuities controlled by the government. See *infra* text accompanying notes 402-12.

ministrative law brewing back in 1970,³⁰⁴ in particular, the impact of environmental values on administrative law. Second, it missed the fundamental shift that occurred after infusing environmental values into the government's role in enforcing environmental protection programs.

a. Administrative Agency Decisionmaking and Accountability

Prior to and during the 1970's, administrative law underwent a significant reformation³⁰⁵ that obviated any meaningful role for the public trust doctrine. Administrative law responded to changing societal demands without resort to the doctrine's origins in Roman law public trust principles. As the subject matter of the administrative agencies' decisions steadily expanded beyond the traditional scope of purely "administrative" matters to substantive issues that affect the behavior of persons in all aspects of their social and economic lives, the basic methodology of administrative agency lawmaking fundamentally changed.³⁰⁶ At the most abstract level, administrative law relatively abandoned the traditional mode of incremental agency decisionmaking, exemplified by case-by-case adjudication,³⁰⁷ and a new synoptic model of administrative lawmaking emerged, which the commentators dubbed "comprehensive rationality."³⁰⁸

304. The discussion below is directed primarily to federal, not state, administrative law. Admittedly, this has several drawbacks. First, clearly state administrative law is more relevant to the public trust doctrine. Second, developments in the state arena are not identical to those in the federal domain and undoubtedly state reforms have generally not been as extensive as federal reforms. In addition, certain concerns about administrative agency decisionmaking are likely to be greater at the state level: for example, risk of agency capture and problems associated with scarce agency resources are more serious at the state level. Still, the general focus on federal administrative law here is not only necessarily expedient, but highly pertinent. Although perhaps not as extensive as federal law, state administrative law has undergone a reformation over the last fifteen years that has in large part paralleled that occurring in federal administrative law. In all events, the potential for state administrative law advances certainly exists, which, by itself, bears on the viability of and independent need for the public trust doctrine. For a general discussion of state versus federal administrative law, see Bonfield, *State Law in the Teaching of Administrative Law: A Critical Analysis of the Status Quo*, 61 TEX. L. REV. 95, 103, 110-13, 123, 127-31 (1982); Bonfield, *Rule Making Under the 1981 Model State Administrative Procedure Act: An Opportunity Well Used*, 35 AD. L. REV. 77 (1983). But see 1 K. DAVIS, ADMINISTRATIVE LAW TREATISE 36-37 (2d ed. 1978) (state judges lag far behind federal judges in developing administrative law, and both state and federal judges look to federal administrative law when confronted with difficult problems).

305. See generally Chayes, *The Role of the Judge in Public Law Litigation*, 39 HARV. L. REV. 1281 (1976); Diver, *Policymaking Paradigms in Administrative Law*, 95 HARV. L. REV. 393 (1981); Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667 (1975); Stewart & Sunstein, *supra* note 222.

306. See Diver, *supra* note 305, at 401-21; Stewart, *supra* note 305, at 1676-88.

307. See Diver, *supra* note 305, at 399-402.

308. See *id.* at 396-99; see also *Chemical Mfrs. Ass'n v. Natural Resources Defense Council*, 105 S. Ct. 1102, 1126-28 (1985) (Marshall, J., dissenting) (disagreeing that EPA can allow exceptions to Clean Water Act standards). The synoptic model, epitomized by generic rulemaking, possesses four typical characteristics: (1) articulation of specific goals to be

Congress, courts, and the Chief Executive each have encouraged and responded to this shift toward administrative lawmaking by the headless fourth branch³⁰⁹ in ways designed to ensure a more complete record before the decisionmaker and to increase agency accountability to the public.³¹⁰ Greater agency accountability itself, to be sure, leads to a more complete administrative record because it facilitates the airing of competing views before the agency,³¹¹ but it also serves an important independent function. Specifically, as the subject matter of agency lawmaking becomes broader and more substantive, concern necessarily grows about the purity of the process through which the agencies make their ultimate determinations.³¹² At the same time, however, statutorily prescribed agency procedures for rendering generic³¹³ rather than adjudicatory rules routinely provide for less, not more, rigorous public and judicial scrutiny.³¹⁴ The original procedures were written with the traditional model of agency lawmaking in mind, that is, agencies decided all important substantive

attained; (2) identification of alternate methods of attainment; (3) evaluation of the effectiveness of each alternative; and (4) selection of the optimal alternative. *See* Diver, *supra* note 305, at 396.

During the 1970's, agencies increasingly implemented decisions through generic rulemaking proceedings instead of through case-by-case adjudications. For example, the Nuclear Regulatory Commission conducts individual adjudicatory proceedings on applications to construct or operate a nuclear power plant. *See* *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 526-27 (1978). In recent years, however, the Commission has removed certain sensitive environmental issues common to all licensing proceedings, such as the environmental impact of the nuclear fuel cycle, and addressed the issue through a generic informal rulemaking proceeding. *See id.* at 528-30. The rule the agency promulgates after notice and comment is applied in each of the individual adjudicatory proceedings. There is no opportunity in the formal setting to question the substance of the rule. The result is to remove from the adjudicatory setting extremely sensitive questions of environmental impact. *See* *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council*, 462 U.S. 87, 100-01 (1983); *Vermont Yankee*, 435 U.S. at 538-39. *See generally* Wright, *The Courts and The Rulemaking Process: The Limits of Judicial Review*, 59 CORNELL L. REV. 375 (1974).

309. *See* Strauss, *The Place of Agencies in Government: Separation of Powers and the Fourth Branch*, 84 COLUM. L. REV. 573, 581-83 (1984).

310. Diver, *supra* note 305, at 409-21.

311. *See id.* at 415; Jaffee, *The Citizen as Litigant in Public Action: The Non-Hohlfeldian or Ideological Plaintiff*, 116 U. PA. L. REV. 1033, 1044-45 (1968); Stewart, *supra* note 305, at 1748-56.

312. *See* Diver, *supra* note 305, at 408-09; Stewart, *supra* note 305, at 1681-88. According to Professor Stewart, not only the widening scope of substantive agency regulation triggered closer judicial scrutiny; a growing judicial perception that the agencies were not adequately carrying out their legislative mandates to protect certain social interests also led to more expansive regulation. Stewart, *supra* note 305, at 1682. In particular, there was the concern that agencies are eventually "captured" by the private sector entities whose behavior the agencies regulate. *See id.* at 1685-86.

313. *See infra* note 308 and accompanying text.

314. Compare Administrative Procedure Act, 5 U.S.C. §§ 553-554 (1982) with *id.* §§ 556-557. *See generally* Fuchs, *Development and Diversification in Administrative Rule Making*, 72 NW. U.L. REV. 83 (1977); Pedersen, *Formal Records and Informal Rulemaking*, 85 YALE L.J. 38 (1975).

issues at the adjudicatory or otherwise incremental level.³¹⁵ Many judicial opinions, legislative enactments, and executive orders over the last decade and a half reflect this concern for more rigorous public and judicial scrutiny and generally aim to increase agency accountability in informal agency decisionmaking that involves matters of particular societal importance.

Congress passed statutes that, although still containing vague mandates, took strides to dictate procedures the agency should follow in implementing the statute. Or, Congress increasingly laid out those explicit substantive matters that the agency must consider and weigh when formulating its policy.³¹⁶ The President, similarly, in recent years has exercised his executive authority to prescribe promulgation rules for agency rulemaking procedures.³¹⁷ The courts, however, have taken the most far-reaching strides to increase agency accountability, both in response to legislative and presidential directives and at the court's own initiative.

Courts have responded in two principal ways. First, judges have strictly enforced requirements designed to promote and enhance public participation in the agency decisionmaking process,³¹⁸ and have made it easier for a private citizen to seek judicial review of the agency's decision.³¹⁹ At the same time, courts perceptively tightened their own stan-

315. See Diver, *supra* note 305, at 405; cf. Chayes, *supra* note 305, at 1285 (traditional concept of adjudication reflecting assumption that major social and economic arrangements resulted from activities of autonomous individuals).

316. See Diver, *supra* note 305, at 409, 411, 413, 415-17, 419; see also, e.g., Regulatory Flexibility Act, 5 U.S.C. § 601 (1982) (requiring preparation of regulatory impact appraisals and regulatory flexibility analyses as part of agency decision to promulgate rules with certain potential economic impacts); Toxic Substances Control Act, 15 U.S.C. § 2603 (1982) (requiring testing of chemical substances); Clean Water Act, 33 U.S.C. § 1314(b)(1)(B), (2)(B), (4)(B) (1982) (effluent limitation guidelines); Clean Air Act, 42 U.S.C. §§ 7411(a)(1), 7607(d)(1) (1982) (standards of performance); see also Schoenbrod, *Goals Statutes or Rules Statutes: The Case of the Clean Air Act*, 30 UCLA L. REV. 740, 827-28 (1983) (favoring specific congressional directives to administrative agencies).

317. Exec. Order No. 12,291, 46 Fed. Reg. 13,193 (1981), provides for agency preparation of a regulatory impact analysis for all "major" rules—those which may result in an "annual effect on the economy of \$100 million or more," see *id.* § 1(b), 46 Fed. Reg. at 13,193, and bars promulgation of any rule if the potential societal benefits of the rule do not "outweigh" the potential societal costs, see *id.* § 2(b), 46 Fed. Reg. at 13,193. See generally Rosenberg, *Beyond the Limits of Executive Power: Presidential Control of Agency Rulemaking Under Executive Order 12,291*, 80 MICH. L. REV. 193 (1981). The executive order expressly states that it does not provide an independent basis for judicial review of challenged agency action. See Exec. Order No. 12,291, § 9, 46 Fed. Reg. 13,198 (1981).

318. See Diver, *supra* note 305, at 409-21; Fuchs, *supra* note 314, at 108-11. See generally Stewart, *supra* note 305, at 1711-60 (expansion of traditional model, extension of hearing rights, and expansion of standing).

319. The courts have relaxed traditional principles of ripeness and standing and the courts have narrowed notions that prosecutorial discretion or other matters committed to agency discretion by law are unreviewable. Both make it easier for litigants to obtain judicial review of the agency action. See Scott, *Standing in the Supreme Court—A Functional Analysis*, 86 HARV. L. REV. 645, 648-58 (1973); Stewart, *supra* note 305, at 1723-56. For

dards of judicial review of the merits of agency decisions by requiring adequate consideration of all interests affected by the agency decision.³²⁰ The courts deferred to agency expertise, perceiving that agency decisions turned as much on questions of social policy and politics as on matters of technical expertise,³²¹ and more willingly demanded, as a matter of agency rulemaking procedure, that an agency provide a more fully reasoned and articulated basis for its decision.³²² In particular, judges compelled agencies to prepare more complete administrative records of decisions,³²³ explain publicly the underlying factual bases of their decisions,³²⁴ respond to all significant comments raised by members of the public,³²⁵ consider explicitly all factors relevant to their determinations,³²⁶ and refrain from *ex parte* communications with interested parties.³²⁷ The frequent result of these heightened procedural requirements is a record the sheer detail of which cannot help but invite even closer judicial scrutiny. Moreover, this heightened judicial scrutiny has not been confined to challenges to agency action, but increasingly extends to challenges of agency inaction as well.³²⁸

an excellent discussion of ripeness, exhaustion, and standing requirements, see generally Fuchs, *Prerequisites to Judicial Review of Administrative Agency Action*, 51 IND. L.J. 817 (1976).

320. See Diver, *supra* note 305, at 411-12; Stewart, *supra* note 305, at 1756-60; Sunstein, *Deregulation and the Hard-Look Doctrine*, 1983 SUP. CT. REV. 177, 181-84; Verkuil, *Judicial Review of Informal Rulemaking*, 60 VA. L. REV. 185, 207-10 (1974).

321. See Stewart, *supra* note 305, at 1702-11.

322. See 5 K. DAVIS, ADMINISTRATIVE LAW TREATISE 410-13 (2d ed. 1984); see also *id.* at 298-307 (lower courts narrowly reading "no law to apply" exception to judicial review of agency action).

323. Courts have been concerned that agencies discuss alternatives to their chosen course of action and state explicit reasons for rejecting other alternatives. These concerns have led to more extensive administrative records that include discussions of alternatives. See Diver, *supra* note 305, at 412.

324. See *American Fed'n of Gov't Employees v. Federal Labor Relations Auth.*, 691 F.2d 565, 574 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 926 (1983); *Connecticut Light & Power Co. v. Nuclear Regulatory Comm'n*, 673 F.2d 525, 530-31 (D.C. Cir.), *cert. denied*, 459 U.S. 835 (1982); *Kennecott Copper Corp. v. EPA*, 612 F.2d 1232, 1236 (10th Cir. 1979); *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 400 (D.C. Cir. 1973), *cert. denied*, 417 U.S. 921 (1974).

325. See *Action on Smoking & Health v. Civil Aeronautics Bd.*, 699 F.2d 1209, 1216 (D.C. Cir. 1983); *Alabama Power Co. v. Costle*, 636 F.2d 323, 384 (D.C. Cir. 1979); *United States v. Nova Scotia Food Prods. Corp.*, 568 F.2d 240, 252 (2d Cir. 1977).

326. See, e.g., *Motor Vehicle Mfrs. Ass'n of United States v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42-43 (1983); *Seatrains Int'l v. Federal Maritime Comm'n*, 598 F.2d 289, 292-93 (D.C. Cir. 1979). See generally Stewart, *supra* note 305, at 1756-60.

327. See *United States Lines, Inc. v. Federal Maritime Comm'n*, 584 F.2d 519, 542 (D.C. Cir. 1978); *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 57 (D.C. Cir.), *cert. denied*, 434 U.S. 829 (1977).

328. See Diver, *supra* note 305, at 420; Stewart & Sunstein, *supra* note 222, at 1205-06, 1267-89; Sunstein, *supra* note 320, at 184-86; Note, *Judicial Review of Administrative Inaction*, 83 COLUM. L. REV. 627, 633-35 (1983).

b. Impact of Environmental Values on the Administrative Process

Judicial appreciation of society's increased concern with environmental protection and resource conservation was a primary impetus behind the administrative law developments during the 1970's.³²⁹ Beginning with the Supreme Court's decision in *Citizens to Preserve Overton Park, Inc. v. Volpe*,³³⁰ courts took a "hard look" at agency decisions that implicated environmental concerns.³³¹ Although the hard look doctrine may in part simply reflect the judiciary's general concern with agencies implementing vague congressional mandates involving issues of broad societal importance,³³² such as those invariably contained in environmental laws,³³³ other more peculiar aspects of environmental concerns have been a major factor. Four aspects stand out most prominently as triggering judicial concern:³³⁴ (1) the lack

329. See generally W. RODGERS, *supra* note 198, § 1.5, at 16-23. Referring to the "dis-integration" of administrative law, Professor Elliott has recently argued that the field of administrative law may not exist apart from certain subspecialties, such as environmental law. See Elliott, *The Dis-Integration of Administrative Law: A Comment on Shapiro*, 92 YALE L.J. 1523, 1528-29 (1983).

330. 401 U.S. 402 (1971).

331. See *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council*, 462 U.S. 87, 97-98 (1983); *Small Refiner Lead Phase Down Task Force v. EPA*, 705 F.2d 506, 520 (D.C. Cir. 1983); *Maryland Nat'l Capital Park & Planning Comm'n v. Postal Serv.*, 487 F.2d 1029, 1037-38 (D.C. Cir. 1973); *International Harvester Co. v. Ruckelshaus*, 478 F.2d 615, 631-32 (D.C. Cir. 1973); *Natural Resources Defense Council v. EPA*, 478 F.2d 875, 881 (1st Cir. 1973); *Environmental Defense Fund v. Ruckelshaus*, 439 F.2d 584, 597-98 (D.C. Cir. 1971). The "hard look" doctrine is simply a judicial shorthand expression for a "heightened level of scrutiny" of agency action. *Office of Communication of United Church of Christ v. FCC*, 707 F.2d 1413, 1425 n.23 (D.C. Cir. 1983).

332. *Stewart & Sunstein*, *supra* note 222, at 1279.

333. See, e.g., *Toxic Substances Control Act*, 15 U.S.C. § 2603(a)(1)(A)(i) (1982) (Administrator can require testing if chemical substance presents "unreasonable risk of injury to health or the environment"); *Endangered Species Act of 1973*, 16 U.S.C. § 1533(d) (1982) ("[T]he Secretary [of the Interior] shall issue such regulations as he deems necessary and advisable to provide for the conservation of [threatened] species . . ."); *Clean Air Act*, 42 U.S.C. § 7409(b)(1) (defining "national primary ambient air quality standards" as those standards "the attainment and maintenance of which in the judgment of the Administrator . . . are requisite to protect the public health"); *Comprehensive Environmental Response, Compensation, and Liability Act*, 42 U.S.C. § 9601(24) (1982) (defining remedy with respect to cleanup of abandoned hazardous waste site as "those actions . . . taken . . . to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment").

334. Many commentators, including judges, recognized the special need for stricter judicial scrutiny in the context of review of administrative agency decisions affecting the quality of the natural environment. See, e.g., Leventhal, *Environmental Decisionmaking and the Role of the Courts*, 122 U. PA. L. REV. 509, 514 (1974); Oakes, *The Judicial Role in Environmental Law*, 52 N.Y.U. L. REV. 498, 499 (1977); Stewart, *The Development of Administrative and Quasi-Constitutional Law in Judicial Review of Environmental Decisionmaking: Lessons from the Clean Air Act*, 62 IOWA L. REV. 713, 740 (1977); Stewart, *Paradoxes of Liberty, Integrity and Fraternity: The Collective Nature of Environmental Quality and Judicial Review of Administrative Action*, 7 ENVTL. L. 463, 469 (1977) [hereinafter cited as Stewart, *Paradoxes of Liberty*].

of a ready powerful constituency able to represent the interests in environmental protection,³³⁵ especially the interests of future generations;³³⁶ (2) the inherent difficulty of measuring the value of environmental protection, let alone assessing the risk of a low probability-high consequence environmental catastrophe, especially when compared to the more immediate and perceptible economic rewards of resource exploitation;³³⁷ (3) the relationship of environmental protection to human health;³³⁸ and, perhaps most importantly, (4) increasing awareness that modern technology has raised the stakes of incorrect short-term decisions by giving us the power to destroy irreversibly aspects of our natural environment whose importance we are only beginning to understand.³³⁹

These same basic concerns are also reflected in modern environmental and natural resources statutes, which now typically rein in agency actions that potentially affect the environment.³⁴⁰ The National Environmen-

335. Stewart & Sunstein, *supra* note 222, at 1276; Stewart, *Paradoxes of Liberty*, *supra* note 334, at 478.

336. The concern for the interests of future generations is evident in many environmental cases. *See, e.g.*, Trustees for Alaska v. Watt, 524 F. Supp. 1303, 1308-09 (D. Alaska 1981) (protection of national wildlife refuge); Hopson v. Kreps, 462 F. Supp. 1374, 1375 (D. Alaska 1979) (conservation of whales); American Horse Protection Ass'n v. Andrus, 460 F. Supp. 880, 885 (D. Nev. 1978) (protection of horses); Wincamp Partnership v. Anne Arundel County, Md., 458 F. Supp. 1009, 1026 (D. Md. 1978) (adequate sewage facilities); United States v. Brown, 431 F.Supp. 56, 61 (D. Minn. 1976) (protection of national parks); United States v. Reserve Mining Co., 380 F. Supp. 11, 17 (D. Minn. 1974) (prevention of water pollution); *see also* Federal Power Comm'n v. Hope Nat. Gas Co., 320 U.S. 591, 657 (1944) (upholding control of prices of natural gas because "public interest . . . requires stopping unjust impoverishment of future generations"). Of course, dozens of opinions recount the language of the National Environmental Policy Act (NEPA) concerning protection of the rights of "succeeding generations" to a healthy environment, 42 U.S.C. § 4331(b)(1) (1982). *See, e.g.*, United States v. SCRAP, 412 U.S. 669, 693 (1973). For general discussions of the rights of future generations in the environmental context, *see* F. ANDERSON, D. MANDELKER & A. TARLOCK, ENVIRONMENTAL PROTECTION: LAW AND POLICY 36-38 (1984); O'Toole & Walton, *Intergenerational Equity as It Relates to Conservation and Coal Extraction Standards*, 22 NAT. RESOURCES J. 53 (1982); Weiss, *supra* note 76.

337. *See* F. ANDERSON, D. MANDELKER & A. TARLOCK, *supra* note 336, at 38-42, 451-72; A. FREEMAN III, R. HAVEMAN & A. KNEESE, THE ECONOMICS OF ENVIRONMENTAL POLICY 81-107 (1973); Baram, *Cost-Benefit Analysis: An Inadequate Basis for Health, Safety, and Environmental Decisionmaking*, 8 ECOLOGY L.Q. 473, 483-86 (1980); Bazelon, *Science and Uncertainty: A Jurist's View*, 5 HARV. ENVTL. L. REV. 209, 212 (1981); Leventhal, *supra* note 334, at 529; Stewart, *Paradoxes of Liberty*, *supra* note 334, at 479. For a recent survey of the various economic approaches toward measuring public environmental goods, *see* Brookshire, Thayer, Schulze & d'Arge, *Valuing Public Goods: A Comparison of Survey and Hedonic Approaches*, 72 AM. ECON. REV. 165 (1982).

338. *See* Ethyl Corp. v. EPA, 541 F.2d 1, 24 (D.C. Cir. 1976) (en banc) ("special judicial interest in favor of protection of the health and welfare of people, even in areas where certainty does not exist"); *see also* Center for Science v. Treasury, 573 F. Supp. 1168, 1173 (D.D.C. 1983) (when health at issue, close scrutiny appropriate).

339. *See* COUNCIL ON ENVTL. QUALITY, TENTH ANNUAL REPORT 4-11 (1979).

340. *See* Diver, *supra* note 305, at 413, 415-17, 419 & n.144.

tal Policy Act of 1969 (NEPA),³⁴¹ buttressed by the ambitious regulations of the President's Council on Environmental Quality,³⁴² is the most obvious example of the modern statutes. It requires federal agencies to consider the environmental impacts of proposed actions, which include issuing federal permits, spending federal funds, and managing vast federal properties, prior to taking any such action.³⁴³ So too, the inclusion in many federal environmental laws of provisions that specify those actions that the agency must consider unlawful³⁴⁴ and that generally impose mandatory duties on the agencies,³⁴⁵ coupled with citizen suit provisions empowering private suits both against agencies for failing to take required action³⁴⁶ and against other private parties for violating the terms of the statute,³⁴⁷ also has dramatically increased agency accountability to the public.

These same triggers are, to be sure, comparable to those Professor Sax suggested to justify heightened judicial scrutiny in the context of the public trust doctrine.³⁴⁸ But while developments in administrative law in

341. 42 U.S.C. §§ 4331-4374 (1982).

342. See 43 Fed. Reg. 55978-56007 (1978) (codified at 40 C.F.R. §§ 1500.1-.6, 1501.1-.8, 1502.1-.25, 1503.1-.4, 1504.1-.3, 1506.1-.12, 1507.1-.3, 1508.1-.28 (1985)).

343. See generally W. RODGERS, *supra* note 198, § 7.1 (1977 & Supp. 1984); ENVTL. LAW INST., NEPA IN ACTION, A REPORT TO THE COUNCIL ON ENVIRONMENTAL QUALITY (1981). A new federal law, the Farmland Protection Policy Act, Pub. L. No. 97-98, 95 Stat. 1213, 1341 (1981) (codified at 7 U.S.C. § 4202(b) (1982)), similarly calls for federal consideration of the impacts of agency action on farmland. Pub. L. No. 97-98, 95 Stat. at 1343.

344. See, e.g., Wild Free-Roaming Horses and Burros Act, 16 U.S.C. § 1334 (1982); Endangered Species Act of 1973, 16 U.S.C. § 1538 (1982); Clean Water Act, 33 U.S.C. § 1301(a) (1982); Clean Air Act, 42 U.S.C. § 7411(e) (1982); Solid Waste Disposal Act, 42 U.S.C. §§ 6925, 6928 (1982).

345. See, e.g., Clean Water Act, 33 U.S.C. §§ 1311(b), 1314(b) (1982); Solid Waste Disposal Act, 42 U.S.C. §§ 6921-6926 (1982); Clean Air Act, 42 U.S.C. §§ 7409(a), 7410(a)(2) (1982). The Hazardous and Solid Waste Amendments of 1984, the most recent in a series of comprehensive revisions of federal environmental laws, follows the statutory pattern of strict agency duties, but with the added measure that should the agency not act within the prescribed deadline, harsh statutory prohibitions on private sector activity go into effect. See Pub. L. No. 98-616, § 201, 98 Stat. 3221, 3226 (amending section 3004 of the Solid Waste Disposal Act, 42 U.S.C. § 6924 (Supp. 1985)).

346. See Toxic Substances Control Act, 15 U.S.C. § 2616(a)(2) (1982); Safe Drinking Water Act, 42 U.S.C. § 300j-8(a)(1) (1982); Clean Air Act, 42 U.S.C. § 7604(a)(2) (1982); Clean Water Act, 33 U.S.C. § 1365(a)(2) (1982); Solid Waste Disposal Act, 42 U.S.C. § 6972(a)(2) (1982).

347. See Toxic Substances Control Act, 15 U.S.C. § 2619(a)(1) (1982); Endangered Species Act of 1973, 16 U.S.C. § 1540(g) (1982); Surface Mining Control and Reclamation Act, 30 U.S.C. § 1270 (1982); Clean Water Act, 33 U.S.C. § 1365(a)(1) (1982); Ocean Dumping Act, 33 U.S.C. § 1415(g) (1982); Deepwater Ports Act, 33 U.S.C. § 1515 (1982); Noise Control Act, 42 U.S.C. § 4911 (1982); Clean Air Act, 42 U.S.C. § 7604(a)(1) (1982); Safe Drinking Water Act, 42 U.S.C. § 300j-8 (1982); Outer Continental Shelf Lands Act, 43 U.S.C. § 1349(a) (1982). See generally Miller, *Private Enforcement of Federal Pollution Control Laws* (pts. 1-3), 13 ENVTL. L. REP. 10,309 (1983), 14 ENVTL. L. REP. 10,063 (1984), 14 ENVTL. L. REP. 10,407 (1984). Indeed, this type of citizen suit against other private parties has blossomed recently.

348. See *supra* text accompanying notes 63-74.

the environmental context confirm Sax' rationale for heightened judicial scrutiny, the developments simultaneously undercut any need to rely on trust doctrine notions. Most simply put, those special considerations related to environmental concerns have successfully spoken for themselves in the judicial arena. Thus, in *Overton Park*³⁴⁹ the Supreme Court, without any need for recourse to the public trust doctrine, effectively accomplished the doctrine's objective—heightened judicial scrutiny of an administrative action that failed to consider adverse environmental impacts.³⁵⁰ Indeed, the import of the Court's reasoning practically endorsed the substantive importance of the relevant environmental considerations.³⁵¹

The advantages of not relying on the trust doctrine, moreover, are substantial. Most fundamentally, the excess baggage that must necessarily be carried by any litigant who wishes to make an argument based on the public trust doctrine disappears. It is unnecessary to argue at the threshold that the doctrine attaches to the resource in question. Following through attenuated chains of title to show that the trust has somehow survived is unnecessary.³⁵² Similarly, it is unnecessary to work around the traditional trust purposes of prodevelopmental objectives such as promotion of commerce (which arguably was met by the roads at issue in *Overton Park*).³⁵³

349. *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1971).

350. *See id.* at 410-14; *see also* *Scenic Hudson Preservation Conference v. Federal Power Comm'n*, 354 F.2d 608, 620 (2d Cir. 1965).

351. *See* 401 U.S. at 412-13:

[T]he very existence of the statutes indicates that protection of parkland was to be given paramount importance. The few green havens that are public parks were not to be lost unless there were truly unusual factors present in a particular case or the cost or community disruption resulting from alternative routes reached extraordinary magnitudes. If the statutes are to have any meaning, the Secretary [of Transportation] cannot approve the destruction of parkland unless he finds that alternative routes present unique problems.

See Diver, supra note 305, at 414 ("The Supreme Court imposed upon the ambivalent statutory language an interpretation designed to resolve the conflict by elevating the preservationist objective to nearly absolute preference."); Stewart, *Regulation in the Liberal State: The Role of Non-Commodity Values*, 92 YALE L.J. 1537, 1586 (1983) (characterizing hard look doctrine as "administrative law variants on the public trust doctrine").

352. This was precisely the mistake that the State of California made in *Summa Corp. v. California ex rel. State Lands Comm'n*, 104 S. Ct. 1751 (1984). In that case the state premised its ability to restrict the development and provide public access to a navigable waterbody on a prior sovereign reservation of a public trust easement in the property. *See id.* at 1753 & n.1. In particular the state, relying on the trust doctrine, was forced to argue that Mexico had reserved the trust interest when it conveyed to private hands the property ceded to the United States under the Treaty of Guadalupe Hidalgo in 1848, 9 Stat. 922 (1848). That property was turned over to California under the equal footing doctrine upon the state's admission to the Union in 1850. *See* 104 S. Ct. at 1753 & n.1. The California Supreme Court ruled for the state, but the United States Supreme Court rejected the state's tortured argument because it could find no evidence of any prior reservation. *See id.* at 1758. It would have been far preferable had California not based its ability to protect and maintain the integrity of the navigable waterbody on such tenuous grounds. *See infra* text accompanying notes 469-76.

353. As we have seen, the traditional trust doctrine concern with promoting commerce

Although administrative law has developed significantly since *Overton Park*,³⁵⁴ it has not re-created a need to resurrect the trust doctrine. On balance, the general thrust of the hard look doctrine clearly has not been abandoned, even by the Supreme Court,³⁵⁵ and the types of considerations raised in environmental cases will necessarily remain those that will trigger special judicial concern.³⁵⁶ The legal requirements are now in place to ensure that end.

Finally, to the extent that earlier trends have been somewhat curtailed, curtailment is not necessarily unjustified. Legitimate competing considerations, such as the need to conserve scarce agency resources, occasionally call for less judicial oversight.³⁵⁷ So too, the nature of today's environmental issues are often so exceedingly complex that the judicial role must necessarily be limited and reliance on administrative agencies must be great. For this reason, the public trust notion of a legislative remand makes little sense today. The administrative agencies serve an essential function in this area of the law and their work should not be undercut lightly.³⁵⁸

In all, the public trust doctrine does not further the needed balancing of modern administrative law concerns. Rather, the doctrine is rooted in the type of common-law notion, the ancient reservation of a trust interest, that modern administrative law was designed to displace.³⁵⁹ The doctrine, therefore, is not only unnecessary in light of ongoing developments, but as before, it is theoretically inconsistent with the pattern of the new legal fabric emerging.

3. *The Government's Role in Protecting the Environment and Conserving Resources*

Finally, the public trust thesis loses vitality because it was based on a characterization of the relationship of the government to the natural

has frequently been invoked to harness the doctrine's weight in support of developmental activities. See *supra* text accompanying notes 48-55, 120-28.

354. See, e.g., *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97-106 (1983); *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 549-55 (1978). See generally Stewart, *Vermont Yankee and the Evolution of Administrative Procedure*, 91 HARV. L. REV. 1805 (1978).

355. See, e.g., *Motor Vehicle Mfrs. Ass'n of the United States v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 56-57 (1983) (overturning Department of Transportation's decision not to require airbags in automobiles). See generally 5 K. DAVIS, *supra* note 322, at 404-10; Diver, *supra* note 305, at 422-25; Sunstein, *supra* note 320, at 184, 194-96, 209-12; Note, *Judicial Review of Informal Administrative Rulemaking*, 1984 DUKE L.J. 347, 369-76. See also generally Rodgers, *A Hard Look at Vermont Yankee: Environmental Law Under Close Scrutiny*, 67 GEO. L.J. 699, 727 (1979) (predicting *Vermont Yankee* likely to be confined).

356. See Diver, *supra* note 305, at 431-34.

357. See *id.* at 428-31; see also Stewart & Sunstein, *supra* note 222, at 1270.

358. See Butler & Cameron, Book Review, 1 ECOLOGY L.Q. 228, 231 (1971) (reviewing J. SAX, *DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION* (1971)).

359. See Stewart & Sunstein, *supra* note 222, at 1273-74.

environment that bears little resemblance to the role of government today. The public trust thesis was based on a view of government in which administrative agencies played little or no positive role in environmental protection or conservation.³⁶⁰ Those agencies instead mostly promoted developmental activities. The agencies conveyed fee simple title in public resources to private developers with few restrictions and engaged in environmentally destructive activities, building unnecessary highways and water projects, with no regard for the environmental consequences. Accordingly, the task for the law, and the public trust doctrine in particular, was to rein in the government.

Now, however, the government for decades has maintained ownership of vast expanses of invaluable parks and wilderness areas.³⁶¹ It is a government with substantial administrative agencies, such as the Environmental Protection Agency (EPA), the Fish and Wildlife Service, and the National Oceanic and Atmospheric Service, whose primary mandates are to prevent needless environmental degradation and to maintain a healthy environment.³⁶² Widely publicized efforts in recent years to undermine those mandates from within have simply not succeeded. Environmental values are now settled in society and cannot be so easily reversed. Even more fundamentally, those agencies now possess career staffs whose technical expertise in environmental matters inevitably surfaces in policy formulation. Although not always controlling the direction of agency decisions, agency staffers have proved quite able to resist the momentum of extreme political tides in either direction. The impact of settled agency expertise is especially significant because under several laws other agencies must consult agencies that possess special environmental expertise, before the other agencies take any action that may adversely affect the environment.³⁶³ This often results in a record of decision that restricts the ability of political appointees to disregard environmental concerns.³⁶⁴

360. See Sax, *supra* note 3, at 474.

361. Professor Sax has criticized federal maintenance of the park system, see generally Sax, *Helpless Giants: The National Parks and the Regulation of Private Lands*, 75 MICH. L. REV. 239 (1976), while others believe that the reforms he thought necessary were already occurring, see G. COGGINS & C. WILKINSON, *FEDERAL PUBLIC LAND AND RESOURCES LAW* 756 (1980).

362. The inability of the public trust thesis to come to terms with the new emerging federal environmental agencies was an early focal point of criticism of Professor Sax's promotion of the doctrine. See Tarlock, Book Review, 47 IND. L.J. 406, 412-13 (1972) (reviewing J. SAX, *DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION* (1971)).

363. See Fish and Wildlife Coordination Act, 16 U.S.C. § 662(a) (1982); Endangered Species Act of 1973, 16 U.S.C. § 1536(a)(2) (1982); National Historic Preservation Act, 16 U.S.C. § 470 (1982); Coastal Zone Management Act of 1972, 16 U.S.C. § 1456(c)(1) (1982); National Environmental Policy Act, 42 U.S.C. § 4332 (1982). But see *Secretary of the Interior v. California*, 464 U.S. 312, 330 (1984) (narrowly construing state consultation requirement of coastal zone management law).

364. For example, undoubtedly one of NEPA's most significant long-term impacts has been the hiring by agencies of personnel with expertise in the environmental area and,

To be sure, the government is not immune from challenges that it continues to engage in or permit environmentally destructive activities that should be halted. The basic assumption that the government possesses no meaningful check on itself, however, is no longer valid. The *laissez faire* prodevelopment government upon which the public trust doctrine is premised is an apparition of the past. When Sax wrote his public trust doctrine manuscript, for instance, essentially none of the major federal environmental laws or their state analogues were on the books. The EPA did not even exist then.³⁶⁵ Today, the government's task is primarily to translate environmental protection and natural resource conservation goals into specific legal rules and standards. Implementing these laws has been a cumbersome, complex task with few easy answers and a task marked by constant squabbles between interested agencies at both the state and

consequently, personnel usually sensitive to environmental concerns. See S. TAYLOR, MAKING BUREAUCRACIES THINK: THE ENVIRONMENTAL IMPACT STATEMENT STRATEGY OF ADMINISTRATIVE REFORM 80-82 (1984); Magat & Schroeder, *Administrative Process Reform in a Discretionary Age: The Rule of Social Consequences*, 1984 DUKE L.J. 301, 320-21. NEPA has, in this manner, led to a new process of environmental decisionmaking in the government. See generally ENVTL. LAW INSTIT., NEPA IN ACTION, ENVIRONMENTAL OFFICES IN NINETEEN FEDERAL AGENCIES (Oct. 1981). Professor Sax, who has criticized NEPA, see generally Sax, *The (Unhappy) Truth About NEPA*, 26 OKLA. L. REV. 239 (1973), does not sufficiently account for this factor. Instead he apparently perceives a model of governmental decision-making in which only outside consultants are hired to prepare environmental impact statements and governmental employees have no interest in the result and mechanically support the regulated community. See *id.* at 246-47; *id.* at 239 ("I cannot imagine a more dubious example of wishful thinking. I know of no solid evidence to support the belief that requiring articulation, detailed findings or reasoned opinions enhances the integrity or propriety of the administrative decisions."). Not only do agencies now often have personnel primarily concerned with environmental impacts, but under the Council on Environmental Quality NEPA regulations the lead federal agency must consult with any federal agency that has expertise in environmental matters. See Circulation of the Environment Impact Statement, 40 C.F.R. § 1502.19(a) (1985); Inviting Comments, 40 C.F.R. § 1503.1 (1985). In addition, under section 309 of the Clean Air Act, 42 U.S.C. § 7609 (1982), the EPA must review and comment on all environmental impact statements. These expert agency comments are typically written by career personnel and provide an important check on the lead agency impact statement. And, even if not heeded by the agency, the comments constitute weighty evidence in the record upon which a citizen may rely in a later challenge to the agency action and may provide the court with grounds to overturn the agency action. See, e.g., *Fritofsn v. Alexander*, 14 ENVTL. L. REP. (ENVTL. L. INST.) 20,266, 20,268, (S.D. Tex. 1984) (comments of Fish and Wildlife Service and National Marine Fisheries Service); *Action for Rational Transit v. West Side Highway Project*, 536 F. Supp. 1225, 1241 (S.D. N.Y.) (comments of EPA, Fish and Wildlife Service, and National Marine Fisheries Service), *aff'd*, 699 F.2d 614, 618 (2d Cir. 1982); see also *Hopi Indian Tribe v. Block*, 19 Env't Rep. Cas. (BNA) 1215, 1220-21 (D.D.C. 1981) (agency statement adequate); *Reid v. Marsh*, 20 Env't Rep. Cas. (BNA) 1337, 1344 (N.D. Ohio 1984) (Army Corps consulted with Fish and Wildlife Service). But see *Report Says Federal Agency Neglect Causing Extensive Destruction of New Jersey Wetlands*, 15 ENV'T REP. (BNA) 1234 (Nov. 9, 1984) (Fish and Wildlife Service report critical of EPA and Army Corps consideration of Service concerns).

365. The EPA was established in 1970. See Reorganization Plan No. 3 of 1970, 35 Fed. Reg. 15,623, 84 Stat. 2036 (1970).

federal levels. Still, these problems do not deny the major overhaul that has occurred in the nature of government's role in the environmental area over the last fifteen years. They merely confirm it.

The public trust doctrine, however, continues to resist the ghost of narrow-minded prodevelopment—government as it was, not as it is. In so doing, the doctrine serves no meaningful role in the ongoing debate on the merits;³⁶⁶ it has become a relic of the past ready to be discarded.

In sum, the apparent litigation achievements of the public trust doctrine dim considerably, if not diminish altogether, when studied in light of independent developments in more generally applicable areas of the law, such as standing, nuisance, the police power, and administrative law. The doctrine's successes in various cases amount to little more than isolated reflections of these more fundamental trends, but have a public trust label prominently attached. In addition, the basic force of the public trust doctrine rests on legal theories fundamentally inconsistent with current notions of sovereignty and property in natural resources. The doctrine's only independent role remains much where it began in this country, with the narrow concern of access to beaches and beds of navigable waters.³⁶⁷

IV. THE FUTURE OF THE PUBLIC TRUST DOCTRINE IN MODERN NATURAL RESOURCES LAW

Mere irrelevance is not, of course, enough to justify a call to abandon public-spirited invocation of the doctrine. Little in the law, let alone legal academia, would likely survive such an exacting standard. Rather, the appropriate remedy depends on whether use of the public trust label has or potentially could have significant adverse effects. It is to this inquiry that the Article now turns.

366. Comment, *supra* note 10, at 487; see also Tarlock, *supra* note 362, at 414 (no consensus about environmental drains exists to answer tough environmental policy issues).

367. Courts often cite growing public demand for beach access to justify expanding the trust doctrine. See, e.g., *Matthews v. Bay Head Improvement Ass'n*, 95 N.J. 306, 323-25, 471 A.2d 355, 364, *cert. denied*, 105 S. Ct. 93 (1984). It is not at all clear, however, that the public trust notion is at all necessary to guarantee access. In *Appleby v. City of New York*, 271 U.S. 364 (1926), the Supreme Court, although holding that the public trust doctrine no longer applied to the submerged bed in question, took pains to point out that public access still was in order:

Of course we do not intend to say that, under such deeds as these, as long as water connected with the river remains over the land conveyed and to be filled, navigation may not go on and boats may not ply over it But it is a very different thing to say that the city which has parted with the *jus publicum* and the *jus privatum* . . . remains in unrestricted control of navigation with the right to dredge them, or appropriate the water over them

Id. at 397-98. Finally, as one commentator has pointed out, courts can base a finding that a right of public access exists on several different doctrines, including the trust doctrine, custom, prescriptive easements, and implied dedication. See Livingston, *supra* note 75, at 679. That author, moreover, forcefully argues that all of these tests generally consider the same factors and courts should apply one unified test that candidly expresses those factors being considered. See *id.* at 685.

Evaluating the public trust doctrine on the basis of the adverse effects criterion leads this author to conclude that continued reliance on the doctrine is ill advised. Continued use of the doctrine ultimately threatens to impede environmental protection and resource conservation goals and possibly render Pyrrhic earlier advances. Most fundamentally, the doctrine's operation exacerbates a growing clash in liberal ideology within natural resources law—between the need for individual autonomy and security, traditionally tied up in private property rights, and the demands of longer-term collectivist goals expressed in environmental protection and resource conservation laws. In addition, totally apart from destructive ideological conflicts the trust doctrine creates, relying on the doctrine is no longer sound strategy. The doctrine no longer reflects current environmental values and unduly relies on a proenvironment judicial bias. Recent Supreme Court precedent strongly suggests, moreover, that the doctrine's fiction carries little weight in the legal balance. This Article discusses these concerns—ideologic and strategic—in turn.

A. Toward a Liberal Rejection of the Public Trust Doctrine

Natural resources law is currently undergoing a major transformation. Traditionally, natural resources law was a scheme of laws riddled over time by a bizarre array of formalistic property-based doctrines designed to achieve specific social goals. It is gradually evolving into a more unified system of rules in which competing private and social goals in natural resources are openly debated and limited private rights are assigned by the government. The public trust doctrine, by inevitably depending on traditional notions of property law and trusts,³⁶⁸ conflicts with the direction that current environmental protection and natural resource conservation concerns are leading legal rules. As a consequence, the doctrine threatens to undermine the important developments in natural resources law.

368. The Supreme Court's recent decision in *Summa Corp. v. California ex rel. State Lands Comm'n*, 104 S. Ct. 1751 (1984), reaffirms the public trust doctrine's inability to escape its historical ties to property law and its consequent vulnerability to attack. See *supra* note 352. In *Summa* the Court held that the state's public trust authority, which the Court repeatedly described as an "easement," was lacking because the state had failed to assert the interest in a patent proceeding mandated by federal law one hundred years earlier. The purpose of the proceeding was to remove any clouds there might be on titles to California lands the private ownership of which derived from earlier conveyances by the Spanish or Mexican government in accordance with Act of Mar. 3, 1851, ch. 41, § 8, 9 Stat. 631, 632. Certainly, as in *Summa*, advocates aiming to undercut the viability of the trust doctrine will emphasize its property rationale. See, e.g., Official Transcript of Oral Argument at 5 (argument of counsel for petitioner), *Summa Corp. v. California ex rel. State Lands Comm'n*, 104 S. Ct. 1751 (1984). But see Coquillette, *supra* note 10, at 813-14 (arguing that trust doctrine's firmest basis is its strong ties to ancient property law).

1. *Erosion of a Property-Based Doctrine*

The thrust of recent developments in environmental and natural resources law has been to replace already eroding traditional notions of private property rights in natural resources with a scheme of government-administered and defined private entitlements to those resources explicitly premised on continuing sovereign regulatory authority.³⁶⁹ The history of natural resources law in this country, which influenced early environmental law, has been marked by a series of obscure legal rules rooted in a wide variety of property law doctrines. Esoteric doctrines such as the rule against perpetuities,³⁷⁰ adverse possession,³⁷¹ abandonment,³⁷² the rule of capture,³⁷³ the common enemy doctrine,³⁷⁴ the English rule of absolute ownership,³⁷⁵ traditional riparian law,³⁷⁶ lost grant,³⁷⁷ ancient lights (or lack

369. Cf. Stewart, *supra* note 351, at 1556-59 (courts not capable of exercising regulatory function of allocating entitlements).

370. "No interest is good unless it must vest, if at all, not later than twenty-one years after some life in being at the creation of the interest." Leach, *Perpetuities in a Nutshell*, 51 HARV. L. REV. 638, 639 (1938). See generally J. MORRIS & W. LEACH, *THE RULE AGAINST PERPETUITIES* (1962).

371. See generally 3 AMERICAN LAW OF PROPERTY §§ 15.1-.2 (A. Casner ed. 1952); Ballantine, *Title by Adverse Possession*, 32 HARV. L. REV. 135, 135-47 (1918).

372. *Gerhard v. Stephens*, 68 Cal. 2d 864, 886-89, 442 P.2d 692, 710-12, 69 Cal. Rptr. 612, 630-32 (1968).

373. The rule of capture basically proposes that the right of a landowner to capture natural resources, such as wild animals, by traps, or groundwater or oil and gas, by drilling, is absolute. Any injury resulting to neighbors who had expectations of obtaining the resource for themselves is *damnum absque injuria*. The leading English case on the rule, *Acton v. Blundell*, 152 Eng. Rep. 1223 (Ex. 1843), has strongly influenced the development of American property law. 2 AMERICAN LAW OF PROPERTY, *supra* note 371, § 10.5.

374. See *Keys v. Romley*, 64 Cal. 2d 396, 400, 412 P.2d 529, 531, 50 Cal. Rptr. 273, 275 (1966):

Stated in its extreme form, the common enemy doctrine holds that as an incident to the use of his own property, each landowner has an unqualified right, by operations on his own land, to fend off surface waters as he sees fit without being required to take into account the consequences to other landowners . . .

See generally *id.* at 400-02, 412 P.2d at 531-32, 50 Cal. Rptr. at 275-76.

375. See *New Albany & Salem R.R. v. Peterson*, 14 Ind. 112, 114 (1860). The gravamen of the English rule is expressed in the maxim reproduced *infra* at note 377.

376. Under strict traditional riparian law, a downstream riparian was entitled to the water that flowed past his lands undiminished in either quantity or quality. Any diminution by an upstream riparian entitled the downstream riparian to sue the former for damages, even without a showing of actual harm. See *Elliot v. Fitchburg R.R.*, 64 Mass. (10 Cush.) 191, 193 (1852).

377. "Under the lost-grant doctrine the courts instructed juries that they [must] find, from the fact that a particular use had been made, that a grant of the privilege of making it had been made and that the grant had been lost." 2 AMERICAN LAW OF PROPERTY, *supra* note 371, § 8.50; see Simonton, *Fictional Lost Grant in Prescription—A Nocuous Archaisim*, 35 W. VA. L.Q. 46, 47 (1928).

thereof),³⁷⁸ the law of waste,³⁷⁹ restraints against alienation,³⁸⁰ and the Statute of Frauds,³⁸¹ and absolute maxims such as *curius est solum eius est usque ad coelum et usque ad inferno*,³⁸² and *primus in tempore, potior est in jure*³⁸³ dominated the substance of legal rules defining the scope of private rights in essential natural resources such as land, water, oil, and gas. Each doctrine or maxim sought to influence either the initial allocation or the subsequent distribution of the affected natural resources in a manner designed to promote identifiable social goals.³⁸⁴

The last one hundred years, however, have been marked by a constant struggle to free natural resources law of the older, often rigid property rules and maxims.³⁸⁵ Many of the rules once served important functions; time, however, has since passed them by. Three primary reasons for this development prevail. First, society has greatly changed and social values have changed accordingly, rendering obsolete the objectives of the

378. "[A]t common law, the land owner had no legal right, in the absence of an easement or uninterrupted use and enjoyment for a period of 20 years, to unobstructed light and air from the adjoining land." *Fontainebleau Hotel Corp. v. Forty-Five Twenty-Five, Inc.*, 114 So. 2d 357, 359 (Fla. Dist. Ct. App. 1959).

379. "The law of waste is concerned with the extent to which a holder of a limited interest in land is restricted in use and enjoyment of his land by the rights of holders of other interests in that land." 5 AMERICAN LAW OF PROPERTY, *supra* note 371, § 20.1, at 71. See generally *id.* § 20.1, at 71-75; *Van Ness v. Pacard*, 27 U.S. (2 Pet.) 137, 143-44 (1829).

380. See 6 AMERICAN LAW OF PROPERTY, *supra* note 371, §§ 26.1-132.

381. The Statute of Frauds requires, *inter alia*, written evidence for conveyances concerning the creation or assignment of certain interests in land. The basic purpose of the requirement was to redress a fear that "because of perjury . . . people might be held on promises which they had never made." Willis, *The Statute of Frauds—A Legal Anachronism*, 3 IND. L.J. 427, 427-29 (1928).

382. "Whoever owns the soil owns all the way to heaven and all the way to the depths."

383. "First in time, first in right."

384. See 5 AMERICAN LAW OF PROPERTY, *supra* note 371, § 20.5 (role of public policy in fashioning law of waste); 6 AMERICAN LAW OF PROPERTY, *supra* note 371, § 26.1 (role of public policy in fashioning law favoring freedom of transfer); Cohen, *supra* note 238, at 22; Donahue, *supra* note 211, at 33-34, 37-38; Horwitz, *supra* note 210, at 279, 287-88; Philbrick, *supra* note 211, at 395. Professor Rodgers sees the common law of waste doctrine as supporting a general legal principle of a duty between succeeding generations of good husbandry toward natural resources. See W. RODGERS, *supra* note 198, at 248-51; see also Frug, *Why Neutrality?*, 92 YALE L.J. 1591, 1594 (1983) (arguing that creation and interpretation of a property right are never value-neutral).

385. See, e.g., *Sloss-Sheffield Steel & Iron Co. v. Wilkes*, 231 Ala. 511, 517, 165 So. 764, 769 (1936) (English rule of absolute ownership has given way to doctrine of "reasonable use"); *Sprecher v. Adamson Companies*, 30 Cal. 3d 358, 371, 636 P.2d 1121, 1128, 178 Cal. Rptr. 783, 790 (1981) (overturning common-law rule that landowner liable for harm caused by "natural" conditions of land); *Weldin Farms, Inc. v. Glassman*, 414 A.2d 500, 504-06 (Del. 1980) (rejecting natural flow standard in favor of reasonable user standard); *Murbarger v. Franklin*, 18 Ill. 2d 344, 348-49, 163 N.E.2d 818, 820-21 (1960) (rejecting rule of capture); *Tucker v. Badoian*, 376 Mass. 907, 916-18, 384 N.E.2d 1195, 1201 (1978) (Kaplan, J., concurring) (rejecting "common enemy rule"); *County of Clark v. Powers*, 96 Nev. 497, 502-04, 611 P.2d 1072, 1075-76 (1980) (rejecting natural flow

old rules.³⁸⁶ These rules, like many property law rules, are weighed down by historical baggage of little continuing relevance.³⁸⁷ Second, several of the earlier doctrines were based on assumptions about the physical characteristics of resources and the limits of technology that advances in science have since discredited.³⁸⁸ Third, the pace of change in recent decades has quickened to such a level that we now require a flexibility in our legal rules that the older doctrines do not admit.³⁸⁹

The steady erosion of these traditional property law doctrines, however, is not an isolated event. It is part of a much wider trend in the law that challenges the very notion of private property rights in natural resources. Most simply put, as a result of dramatic and accelerating social, economic, and scientific changes in this country over the last one hundred years, the public interest in protecting natural resources and ensuring the most efficient or socially optimal distribution of products has increased exponentially and has overtaken individual interests.³⁹⁰ Most persons no longer live in rural settings with ready access to private ownership rights in basic natural resources and thus most must rely on others

standard in favor of reasonable user standard); *Cline v. American Aggregates*, 15 Ohio St. 3d 384, 387, 474 N.E.2d 324, 326-27 (1984) (rejecting English rule of percolating water); *Prah v. Maretti*, 108 Wis. 2d 223, 240, 321 N.W.2d 182, 191 (1982) (holding interest in solar access deserving of consideration in nuisance balance); *State v. Deetz*, 66 Wis. 2d 1, 18, 224 N.W.2d 407, 416 (1974) (overturning common-enemy doctrine); see also Horwitz, *supra* note 210, at 264-65, 279-80, 287-88; Walker, *Property Rights in Oil and Gas and Their Effect upon Police Regulation of Production*, 16 TEX. L. REV. 370, 373-79 (1938); Wiel, *supra* note 280, at 439; cf. E. FREUND, *supra* note 215, §§ 372-373 (governmental power should depend upon peculiar condition of object of regulation, not fictional grant). But see *Wiggins v. Brazil Coal & Clay Corp.*, 452 N.E.2d 958, 963-64 (Ind. 1983) (arguably reasserting English rule of absolute ownership for "percolating" waters); *Argyelan v. Haviland*, 435 N.E.2d 973, 976 (Ind. 1982) (adhering to common-enemy doctrine).

386. See Donahue, *supra* note 211, at 57.

387. See Philbrick, *supra* note 211, at 696, 723-24; Stevens, *supra* note 10, at 195; Yandle, *supra* note 238, at 7-8; see also R. DUNBAR, *FORGING NEW RIGHTS IN WESTERN WATER* 211 (1983).

388. See Horwitz, *supra* note 210, at 251-52, 263; *Outer Space*, *supra* note 297, at 545-46; Pejovich, *Towards an Economic Theory of the Creation and Specification of Property Rights*, 30 REV. SOC. ECON. 309, 314 (1972); Walker, *supra* note 385, at 370-71, 374-76. New technology may also create new conflicts over resource simply by providing new opportunities for their exploitation. For instance, conflicts over water, which traditionally had been utilized for domestic and agricultural purposes, increased dramatically once advances in technology led to industrial demands on the resource as well; indeed, it led ultimately to governmental reformulation of private rights in the water resources. Fly, *supra* note 22, at 286-94.

389. Common-law doctrine similarly fell short at earlier times in the wake of the "awesome nature and pace of the changes wrought by the Industrial Revolution . . . [I]t was no match for the social problems spawned by industrialization." McLaren, *Nuisance Law and the Industrial Revolution—Some Lessons from Social History*, 3 OXFORD J. LEG. STUD. 155, 220 (1983).

390. See H. BERMAN, *supra* note 230, at 36-37; Philbrick, *supra* note 211, at 724-25; Pound, *supra* note 249, at 234 ("[I]n a crowded world the social interest in the use and conservation of natural media has become more important than individual interests of

to exercise rationally those rights.³⁹¹ Private ownership of natural resources, moreover, does not reside as in the past with individuals often very concerned about the need to preserve sufficient resources for their children and their children's children. Increasingly, it is in the hands of corporate giants, which are guided in their decisionmaking by short-term profit maximization.³⁹² Technology does not provide an outer limit on resource exploitation, but instead it has advanced to the stage that threatens exploitation of monumental proportions. At the same time, advances in other, more subtle areas of the physical, chemical, and biological sciences only recently have begun to suggest the full extent of the fragile interdependencies in our natural environment. These advances reveal the possibly irreversible consequences of manipulating the environment to meet immediate demands.³⁹³

The most obvious implication of this increased public interest has been greater demand for direct governmental involvement in decisions that affect the relative availability and quality of important natural resources.³⁹⁴ The most pernicious implication is that the most central justification of private property rights in those resources is undermined.³⁹⁵ Private property rights today are justified principally on the market theory that a rational profit maximizer who owns natural resources will utilize those resources in a manner that not only optimizes his or her own in-

substance."); Wiel, *supra* note 280, at 456-57 (fundamental nature and need for basic natural resources, totally apart from their physical characteristics, will mean erosion of private property rights, despite dangers inherent in communism); see also Sax, *supra* note 235, at 493.

391. See Philbrick, *supra* note 211, at 723-24.

392. This has been the precise concern behind the recent enactment of state laws restricting corporate ownership of farmland. See *Absentee Ownership of Farmland: Hearing Before the House Subcomm. on Family Farms, Rural Development, and Special Studies of the Comm. on Agriculture*, 96th Cong., 2d Sess. 5 (1980) (testimony of Iowa Attorney General Thomas J. Miller); see also *supra* note 302.

393. See generally COUNCIL ON ENVTL. QUALITY, TENTH ANNUAL REPORT (1979) (protection of environment has become strong American value); see also L. BECKER, *supra* note 225, at 109-10 (resources viewed as inexhaustible centuries ago are in imminent danger of being exhausted); Elliott, *Anthropologizing Environmentalism* (Book Review), 92 YALE L.J. 888, 894 (1983) (scientific evidence of environmental damage distinguishes modern pollution beliefs from those of primitive cultures based on supernatural); Furrow, *Governing Science: Public Rights and Private Remedies*, 131 U. PA. L. REV. 1403, 1403 (1983) (scientific advances create risks with unknown probabilities faster than the risks can be assessed). For a general discussion of the important relationship between the acquisition and application of scientific and technical knowledge and substantive policy throughout American legal history, see J. HURST, *supra* note 222, at 157-213 (1977).

394. See *supra* text accompanying notes 360-66; see also Friedman, *Exposed Nerves: Some Thoughts on Our Changing Legal Culture*, 17 SUFFOLK U.L. REV. 529, 545 (1983) ("This is a society of strangers. We depend on each other to a fantastic degree; but the people we depend on are, by and large, people we never see face to face, over whom we have no control. . . . We rely on the state—on rules of law—to protect us.") (emphasis in original).

395. See H. BERMAN, *supra* note 230, at 34-35; Philbrick, *supra* note 211, at 724; Sax, *supra* note 235, at 484.

terest but also society's overriding interest in the efficient use of the resource.³⁹⁶ Notions of individual personality and security, although still present, are generally mere incidental justifications for private property rights. The clear implication of these changes in social demographics and advances in science is that society cannot so easily rely on the free market premise that a private decisionmaker acting in his or her own best interest will also act in society's best interest. The private decisionmaker will be unaware of the social costs of the decision. Although this has always been true, the notion of externalities, reflected in the concept of rights created by dependencies between various property owners, has generally been a minor concern of property law, or at least it has been left largely unstated.³⁹⁷ Today those unconsidered social costs may be tremendous in the natural resources context.³⁹⁸ For example, the cost to future generations is of special concern, particularly in light of our growing exploitation abilities.³⁹⁹

Of course, to an economist this is just a lawyer's (perhaps simplistic) restatement of the impact of externalities on the efficacy of private markets and the rationale for governmental regulation.⁴⁰⁰ Be that as it may, the

396. See Anderson & Hill, *Establishing Property Rights in Energy: Efficient v. Inefficient Processes*, 1 CATO J. 87, 89-91 (1981); cf. Friedman, *The Economics of the Common Pool: Property Rights in Exhaustible Resources*, 18 UCLA L. REV. 855, 880 (1971) (owners of scarce resources seek stable long-term profits and will not increase production for short-term gains); Grey, *The Disintegration of Property*, in PROPERTY: NOMOS XXII 177-78 (J. Pennock & J. Chapman eds. 1980) (property owner's pride and concern for reputation among his neighbors encourages him to take good care of property); Horwitz, *supra* note 210, at 260-61, 290 (in mid-nineteenth century, government began encouraging private ownership and monopoly to promote efficiency).

397. See, e.g., 2 AMERICAN LAW OF PROPERTY, *supra* note 371, at 229-31 (neighboring property owners have rights in one another's land under certain circumstances). The sufficiency of private contractual arrangements to address these types of externalities is implicit in Justice Holmes' opinion in *Pennsylvania Coal*. See *supra* text accompanying notes 245-61.

398. See J. DALES, POLLUTION, PROPERTY AND PRICES 39-57 (1968); Calabresi & Melamed, *supra* note 211, at 1106-10; cf. Coquillette, *supra* note 10, at 778-79 (changes in nuisance law a response to increasing population of urban areas and increasing conflicts as competition for space intensified); Comment, *The Dormant Commerce Clause and the Constitutionality of Intrastate Ground Water Management Program*, 62 TEX. L. REV. 537, 540-41 (1983) (no incentive to extract groundwater at efficient rate under traditional property rules).

399. See d'Arge, Schulze & Brookshire, *Carbon Dioxide and Intergenerational Choice*, 72 AM. ECON. REV. 251, 255 (1982); D. MANDELKER, ENVIRONMENT AND EQUITY: A REGULATORY CHALLENGE 13-14 (1981); see also Steiner, *Slavery, Socialism & Private Property*, in PROPERTY: NOMOS XXII 252-53 (J. Pennock & J. Chapman eds. 1980) (user of existing exhaustible resources cannot know the loss his use will cause future generations and therefore cannot compensate them). The problem of leaving future generations with scarce natural resources is not, of course, just a modern concern. The rule of perpetuities, it has been argued, primarily reflected a public policy to strike "a fair balance between the desires of members of the present generation, and similar desires of succeeding generations, to do what they wish with the property which they enjoy." See J. MORRIS & W. LEACH, *supra* note 370, at 17 (quoting SIMES, PUBLIC POLICY AND THE DEAD HAND 58 (1955)).

400. For a discussion of the impact of environmental externalities, see Davis & Kamien,

essential point remains that, at least for natural resources, the problem of externalities has become so acute that the very notion of traditional private property rights in those resources is in doubt.⁴⁰¹

2. *The Rise of "New Property" in Natural Resources Law*

The clear trend in environmental law and natural resources law today is to replace traditional notions of private property rights in natural resources with an intricate scheme of government-administered entitlements and permits.⁴⁰² This trend is most evident in developing governmental programs respecting resources that have traditionally been the object of exclusive private ownership, such as land, groundwater, and fossil fuels. Detailed land use plans restrict private decisionmaking;⁴⁰³ and even when development such as mining is allowed by law, subsequently restoring land to its approximate natural condition may be required.⁴⁰⁴ Groundwater, under the common law, was the absolute property of the overlying

Externalities, Information, and Alternative Collective Action, in R. DORFMAN & N. DORFMAN, *ECONOMICS OF THE ENVIRONMENT* 69, 73-77 (1972); Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243, 1243-48 (1968); Coase, *The Problem of Social Cost*, 3 *J. L. & ECON.* 1, 15-19 (1960).

401. See L. BECKER, *supra* note 225, at 1, 116-18; see also Sax, *supra* note 235, at 485, 489. Even stalwart supporters of private property rights such as John Locke recognized that essential natural resources involved special considerations and, accordingly, apparently have justified their private property rights in those resources on the presence of minimal negative externalities. See T. ANDERSON, *WATER RIGHTS* 16 (1983). Critics of Locke's general labor theory of property, moreover, have stressed its inapplicability to scarce natural resources and its failure to account for the impact of private property on future generations and the exhaustibility of certain natural resources. See L. BECKER, *supra* note 225, at 42-43, 43, 94-95; Steiner, *supra* note 399, at 251-53, 257-59. They also forcefully argue that because the value of natural resources is not initially "produced" by labor, they are less susceptible to a claim based on fruits of labor. See Steiner, *supra* note 399, at 250; Yandle, *supra* note 238, at 4. More broadly, others have argued that once society becomes industrialized and urbanized and highly interdependent, the labor theory of property loses meaning, because almost no individual effort is unaided by society. See Cohen, *supra* note 238, at 16-18.

402. See, e.g., Grey, *supra* note 396, at 79-81 (trend in modern capitalist societies toward gradual dissolution of private property rights); Oakes, *supra* note 224, at 583 (importance of individual property rights depends on political philosophy popular at any given time); see also Reich, *supra* note 283, at 737 (citizens already depend upon government to redistribute wealth); Freyfogle, *Land Use and the Study of Early American History*, 94 *YALE L.J.* 717, 736 (1985) (inquiring whether complete ownership of property in natural resources may be replaced with usufruct, with ultimate ownership in public). Professor Grey argues that once the theory of property as a bundle of interests was firmly substituted for thing-ownership, the ultimate consequence was the cessation of property as an important category in legal theory. See Grey, *supra* note 396, at 81. Arguably, this is precisely what we are witnessing in natural resources law.

403. For reviews of the development of land use controls in the United States, see F. BOSSELMAN & D. CALLIES, *supra* note 297, at 1-5; Large, *This Land is Whose Land? Changing Conceptions of Land as Property*, 1973 *WIS. L. REV.* 1039, 1050-58.

404. See Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. § 1265(b) (1982); Grossman, *supra* note 297, at 226-28.

property owner⁴⁰⁵ and is now the object of strict state regulatory allocation under new laws.⁴⁰⁶ The production and exploitation of fossil fuels is not only the subject of massive regulation,⁴⁰⁷ but also the object of substantial taxes that effectively transfer the economic wealth of the resource to the general public.⁴⁰⁸

This same trend extends to those natural resources historically considered incapable of private ownership, such as air, oceans, arctic zones,

405. "[T]he land immediately below is his property, whether it is solid rock, or porous ground, or venous earth, or part soil part water" *New Albany & Salem R.R. v. Peters*, 14 Ind. 112, 114 (1860).

406. Extraction of groundwater is now associated with several substantial negative externalities for which traditional common-law property rules did not account. The externalities include overdraft, subsidence, saltwater intrusion, reduced surface stream flow, increased pumpage costs, and general social and economic disruption. Comment, *supra* note 398, at 540-42. Accordingly, a host of new state laws, particularly in the West, are taking a new look at the groundwater resource and strictly regulating its extraction and use. See, e.g., ARIZ. REV. STAT. ANN. §§ 45-401 to 45-637 (Supp. 1985); NEB. REV. STAT. §§ 46-656 to 46-673.01 (1984). See generally R. DUNBAR, *supra* note 387, at 173-91; Kyl, *The 1980 Arizona Groundwater Management Act: From Inception to Current Constitutional Challenge*, 53 U. COLO. L. REV. 471 (1982); Pascoe, *Plans and Studies: The Recent Quest for a Utopia in the Utilization of Colorado's Water Resources*, 55 U. COLO. L. REV. 391 (1984); Smith, *Centralized Decisionmaking in the Administration of Groundwater Rights: The Experience of Arizona, California and New Mexico and Suggestions for the Future*, 24 NAT. RESOURCE J. 641 (1984); see also generally *Town of Chino Valley v. City of Prescott*, 131 Ariz. 78, 82, 84, 638 P.2d 1324, 1328, 1330 (1981) (upholding Arizona Groundwater Management Act on due process and taking grounds), *appeal dismissed*, 457 U.S. 1101 (1982); Clark, *A Proposed Water Resources Code or Statute: Arizona Water Resources Management Act of 1977*, 19 ARIZ. L. REV. 719, 730-41 (1977). Clark also quoted the 1976 UN Conference on Water Law and Administration Recommendations: "Some legal systems have now abandoned the concept of ownership in favor of use rights to be exercised under specified terms and conditions. See *id.* at 847.

407. For example, consider the requirements just for coal under the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. §§ 1201-1328 (1982); Clean Air Act, 42 U.S.C. § 7441 (1982); Powerplant and Industrial Fuel Use Act of 1978, 42 U.S.C. §§ 8301-8484 (1982), as well as the host of state laws regulating storage and transportation and, to the extent that coal is used to produce electricity for the public and thus falls under the indirect supervision of state public service commission, price; see also Public Utility Regulatory Policies Act, 16 U.S.C. §§ 2601-2645 (1982). Of course, because the federal government has retained ownership over massive amounts of territory, primarily in the western United States and Alaska, and has jurisdiction over the outer continental shelf, all with vast amounts of this nation's natural resources, governmental control over natural resources in fact extends far beyond its extensive control over private lands. See generally Sax, *supra* note 238. Indeed, even where the federal government has previously granted private property rights in public lands, it has in recent years retroactively restricted those preexisting rights. See, e.g., *United States v. Locke*, 105 S. Ct. 1785, 1798-99 (1985) (upholding, in face of takings challenge, Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1784 (1982), retroactive requirement of recording and annual filing of mining claims, with forfeiture of claim in absence of compliance).

408. See A. CHURCH, *supra* note 232, at 7, 9, 42-54; see also *United States v. Ptasynski*, 462 U.S. 74, 76-77, 79-80 (1983) (upholding Crude Oil Windfall Profits Tax Act of 1980, 26 U.S.C. §§ 4986-4998); *Commonwealth Edison v. Montana*, 453 U.S. 609, 636-37 (1981) (upholding Montana coal severance tax).

and space, but no longer so viewed in light of recent technological advances that allow, if not exclusive possession, then irreversible despoliation.⁴⁰⁹ Current laws direct the government to allocate rights in those resources⁴¹⁰ and, in the case of pollution control laws, allow private markets in these "new property" rights in natural resources.⁴¹¹ The goal of the new property rights is to reemphasize the importance of private markets in achieving allocational efficiency once the government has had the opportunity to set the initial ground rules.⁴¹²

Finally, the trend toward legislative replacement of common-law rights with limited entitlements defined by the government in the first instance extends to traditional common-law tort rights as well as common-law property rights.⁴¹³ In the environmental area, for example, statutes limit or

409. Hardly any identifiable resources are outside the potential embrace of technological advances aimed at harnessing their value for exclusive use. Recent years have even witnessed Idaho suing Wyoming for alleged "cloud rustling." Minoque, *The Concept of Property and Its Significance*, in PROPERTY: NOMOS XXII 12 n.19 (J. Pennock & J. Chapman eds. 1980).

410. That the government now effectively distributes property rights in these resources follows from the government's assertion of power, in the first instance, to require a permit for activities that may affect the resource. See *supra* text accompanying notes 277-87.

411. Recently a two-column ad ran in the *Wall Street Journal* offering the services of a brokerage firm for the sale and purchase of air pollution rights. See *Air Emission Offsets Available*, Wall St. J., Oct. 26, 1982, at cols. 5-6. EPA also allows gasoline refiners to store and sell rights to use lead in federally regulated products. See *Extension of Lead Trading Rights to 1987 for Gas Refiners Issued As Policy By EPA*, 15 [Current Developments] ENV'T REP. (BNA) 2084 (Mar. 9, 1985). Even more recently, the United States Fish and Wildlife Service has approved a project in which a developer is awarded credits for investment in wildlife habitat protection and restoration that the developer may "bank" and either withdraw on its own to support a later destructive developmental project or sell to another developer who wishes to apply the credit to its own proposal. To date, the availability of this banking of credits has been relevant to issuing a federal permit under section 404 of the Clean Water Act, 33 U.S.C. § 1344 (1982), for wetlands development. See M. Zagata, Mitigation by "Banking" Credits—A Louisiana Pilot Project at 2 (unpublished paper on file with the *Iowa Law Review*). See generally T. ANDERSON, *supra* note 401, at 318-20 (water quality); R. CRANDALL, CONTROLLING INDUSTRIAL POLLUTION 166-67 (1983) (same); J. DALES, *supra* note 398, at 77-100 (water and air pollution rights); Comment, *Who Owns the Air? Emission Offset Concept and Its Implications*, 9 ENVTL. L. 575, 591-92, 599-600 (1979) (discussing impact of 1970 Clean Air Act on property rights in air resources); Comment, *Markets in Air: Problems and Prospects of Controlled Trading*, 5 HARV. ENVTL. L. REV. 377, 377, 379, 399-403 (1981) (same).

412. See generally Yandle, *supra* note 238, at 8-11 (discussing the transition from publicly held to privately held property rights). What is especially interesting about the trend in private property rights in natural resources is that rights in resources such as land, traditionally a matter of exclusive private ownership, and rights in resources such as air, traditionally a matter of communal ownership, apparently converge to a middle ground at which the government attempts to accommodate society's interest in environmental quality and resource conservation and its simultaneous interest in providing for some level of private property rights. The end product will likely be a scheme of limited rights in natural resources originating in the government.

413. Traditional common-law tort principles simply cannot cope with the conflicts that occur between individuals in our industrialized society. The formalistic legal rules established to handle traditional tort cases fall far short when applied by courts to the types of in-

prescribe liability for harm caused by certain environmental catastrophes.⁴¹⁴ According to the courts, a "person has no property, no vested interest, in any rule of the common law."⁴¹⁵

The public trust doctrine simply has no place in this emerging scheme. The doctrine finds its home in the legal analytical framework supported by traditional property dogma currently (and appropriately) being abandoned. It was essentially the public property analogue to those private property concepts, which are now eroding. The doctrine's main purpose, like notions of "qualified property" and "property affected with a public interest,"⁴¹⁶ long since discarded, was to provide the sovereign with a ready answer to claims of the sanctity of private property rights at a time when governmental power was itself rooted in its own property holdings.⁴¹⁷ To be sure, the public trust doctrine has tremendous mystical and romantic appeal,⁴¹⁸ which no doubt partly explains its revival in recent years. It must be every litigating lawyer's dream to uncover that ancient case with still-binding precedent that turns the tide by establishing in the client some invincible right. From that perspective, what is better than a right grounded in Roman law that purported to protect the quality of the natural environment and the rights of unrepresented future generations in its preservation?⁴¹⁹ Still, just as notions of absolute private property rights in natural

juries, for example, caused by exposure to toxic chemicals wherein proof of exposure and causation are well-nigh impossible under traditional norms. See Rosenberg, *The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System*, 97 HARV. L. REV. 851, 855-59 (1984); Note, *Tort Actions for Cancer; Deterrence, Compensation, and Environmental Carcinogenesis*, 90 YALE L.J. 840, 847-48, 851-55 (1981); see also Note, *The Inapplicability of Traditional Tort Analysis to Environmental Risks: The Example of Toxic Waste Pollution Victim Compensation*, 35 STAN. L. REV. 575, 588-607 (1983) (faulting existing statutory framework for modeling its approach to toxic victim compensation on traditional tort law objectives of compensation, deterrence, and corrective justice).

414. See *Duke Power Co. v. Carolina Envtl. Study Group, Inc.*, 438 U.S. 59, 87-88 (1978) (Price-Anderson Act, 42 U.S.C. § 2210 (1982), limiting industry liability in event of nuclear accident); *Usery v. Turner Elkhorn Mining Co.*, 428 U.S. 1, 8 (1976) (Federal Coal Mine Health and Safety Act, 30 U.S.C. §§ 901-945 (1982), modified common-law liability of coal mine operators from black lung disease of miners); *Alabama By-Products Corp. v. Killingsworth*, 733 F.2d 1511, 1516-18 (11th Cir. 1984) (upholding constitutionality of agency presumption that once employed in coal mine for longer than 10 years, disability due to black lung upon showing of certain health effects); *United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 807-08 (S.D. Ohio 1983) (under evolving principles of federal common law of torts, liability under Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607 (1982), is not only strict, but joint and several for indivisible harm arising out of abandoned hazardous waste sites).

415. See *Duke Power Co. v. Carolina Envtl. Study Group, Inc.*, 438 U.S. 59, 88 n.32 (1978).

416. See E. FREUND, *supra* note 215, § 373; Walker, *supra* note 385, at 377-79.

417. See H. HARTOG, *supra* note 214, at 101-42, 264 (1983).

418. See Deveney, *supra* note 10, at 29; Stevens, *supra* note 10, at 232 (public trust doctrine related to myth of our creation). See generally Smith & Weisstub, *Introduction*, to *THE WESTERN IDEA OF LAW* (J. Smith & D. Weisstub eds. 1983) (discussing law as fulfilling man's mythical and dramatic needs).

419. In this way, the trust doctrine clearly benefits from an "emotive force of pretense"

resources have been and are being eroded in the wake of modern environmental and natural resources laws, so too it is only appropriate that their public property analogues be similarly abandoned.⁴²⁰ Absolutist claims on either side of the ledger are, at best, unhelpful.⁴²¹ At an earlier time, the doctrine no doubt served the quite useful function of focusing legal analysis on a growing public concern—preserving and conserving natural resources. That initial task of refocusing has been accomplished. The difficult problems that beset the development and implementation of modern environmental and natural resources law are no longer aided by resort to a legal doctrine, such as the public trust.⁴²²

3. *The Need for Candor and Protection of Individual Rights in Natural Resources Law*

Undoubtedly, the most difficult problem facing environmental and natural resources law is to reestablish some level of certainty and security in private interests in natural resources.⁴²³ While traditional notions of absolute private property rights are no longer in order, defining the scope of the emerging new property rights in those resources is critical to the long-term viability of the environmental protection movement. Reliance on the private market is not only a relentless theme in political life that cannot be ignored, but even more fundamentally, the total erosion of private

that adds to its persuasiveness. L. FULLER, *supra* note 164, at 54.

⁴²⁰ The history of property rights in natural resources has suffered from extreme claims at either end of the spectrum that either the public sector or the private sector possess absolute rights. See Cohen, *supra* note 238, at 21; Philbrick, *supra* note 211, at 708-10. One should not, " 'seeing the perversion of principles, follow the besetting fallacy of men and seek salvation from one evil in its opposite, as if the means of escaping death by fire were freezing to death.' " Philbrick, *supra* note 211, at 731 (quoting F. LIEBER, ON CIVIL LIBERTY AND GOVERNMENT 19 (3d ed. 1911)).

⁴²¹ See L. TRIBE, *supra* note 179, at 538; Philbrick, *supra* note 211, at 731.

⁴²² Professor Trelease has ably criticized the use of trust doctrine notions as a basis for settling conflicts over water rights. See Trelease, *Government Ownership & Trusteeship of Water*, 45 CALIF. L. REV. 638, 645-49 (1957) [hereinafter cited as Trelease, *Government Ownership*]; see also Trelease, Choices for Hawaii's Future Water Code—The Lessons of Past Experience 23-30 (Sept. 27-28, 1984) (remarks before Conference on Water Regulation in Hawaii: The Proposed Statewide Water Code) (copy on file with the *Iowa Law Review*). Professor Trelease argues that the doctrine impedes open debate on the merits by injecting irrelevant property law considerations into the analysis. Trelease, *Government Ownership*, *supra*, at 639, 654. Trelease added that it would be far better to describe the nature of sovereign authority over waters as an exercise of state police powers. See *id.* at 643-45. The same concerns are multiplied now that the public interest in natural resource conservation is even greater and utilization of the doctrine appears to be on the rise. See also Rosen, *supra* note 16, at 612 (recommending abandonment of public trust doctrine).

⁴²³ See B. ACKERMAN, *supra* note 237, at 1-5; Coquillette, *supra* note 10, at 763. Compare Oakes, *supra* note 224, at 596-97 (arguing protection of private property rights currently on rise) with Sax, *supra* note 235, at 481 (arguing protection of private property rights currently on demise). At present, a persistent school of thought suggests a return to exclusive reliance on the marketplace to allocate natural resources. Under this view,

property rights ultimately would threaten individual liberty.⁴²⁴ A time may have once existed when using complex technical legal doctrines, such as the public trust doctrine, allowed society to maintain the facade of economic security while “new property . . . swe[pt] away old.”⁴²⁵ So too, once perhaps “the uncertainties of human existence reinforced a culture of low hopes and demands from law and government.”⁴²⁶ That is no longer the case. Changes today are simply too many and too quick, and they routinely come within the span of individual human memory. And in this country a legal culture has developed that prompts private individuals to look to the law to meet their demands for justice and compensation when they suffer losses.⁴²⁷

Consequently, environmental and natural resources laws cannot depend for long on vague notions of “public interest” any more than they can rely on property-based notions such as the public trust doctrine to justify their impact on private expectations. As in the past, liberal ideology,

exclusive, well-defined private property rights to those resources must be assigned and honored by the legal system. *See generally* T. ANDERSON, *supra* note 401, at 119-30, 145-47, 197, 223-36, 274-78; Anderson & Hill, *supra* note 396; Yandle, *supra* note 238, at 10. Proponents argue that governmental regulation inevitably leads to gross inefficiencies. *See* T. ANDERSON, *supra* note 401, at 4-5, 88, 131-33; *see also* De Vany, Eckert, Meyers, O'Hara & Scott, *A Property System for Market Allocation of the Electromagnetic Spectrum: A Legal-Economic-Engineering Study*, 21 STAN. L. REV. 1499, 1507 (1969). Some even contend that the Sierra Club and similar organizations can buy land for preservation, if they so choose, to remedy the problem of future generations being unrepresented in the marketplace. *See* A. CHURCH, *supra* note 232, at 8. The purchase of land has been a traditional approach of the Nature Conservancy, a national organization dedicated to the preservation of areas of significant value in their natural condition. There is, however, a competing school of thought that private property rights are unnecessary. Proponents of this view argue that common rights to certain communal resources historically have not been inefficient. *See* Ciriacy-Wantrup & Bishop, *supra* note 76, at 717-24; Kennedy & Michelman, *Are Property and Contract Efficient?*, 8 HOFSTRA L. REV. 711, 714 (1980); *see also* Coquillette, *supra* note 10, at 809 & n.232. The truth, no doubt, lies somewhere in the middle. The proper approach for each resource depends first on its physical characteristics and second, on its relation to human and other needs. These two constraints will not allow either absolute private rights or total communal rights. Indeed, at times each side appears to admit as much. The former admits that because of externalities associated with overpumping of aquifers some groundwater must remain unallocated, *see* T. ANDERSON, *supra* note 401, at 239-41, and the latter approves of governmental quotas of certain traditionally “shared” resources like fish, *see* Ciriacy-Wantrup & Bishop, *supra* note 76, at 723.

424. “Property does not have rights. People have rights. . . . In fact, a fundamental interdependence exists between the personal right to liberty and the personal right in property. Neither could have meaning without the other. That rights in property are basic civil rights has long been recognized.” *Lynch v. Household Fin. Corp.*, 405 U.S. 538, 552 (1972). Professor Pound saw property as essential to individual security. *See* Pound, *supra* note 249, at 222-24; *see also* L. BECKER, *supra* note 225, at 75-76, 79-80; Oakes, *supra* note 224, at 624; Philbrick, *supra* note 211, at 713-14; Reich, *supra* note 283, at 787. *See generally* Radin, *Property and Personhood*, 34 STAN. L. REV. 957 (1982).

425. Horwitz, *supra* note 210, at 251.

426. Friedman, *supra* note 394, at 544.

427. *Id.* (“over the course of a century or so there has developed a general expectation of justice, and a general expectation of repayment for loss”) (emphasis deleted).

having once thrown off the yokes of feudalism, will ultimately rebel unless a more narrowly circumscribed justification is offered that preserves minimum standards of individual security.⁴²⁸ Individual liberty and security was clearly the concern of Justice Holmes when he wrote the majority opinion in *Pennsylvania Coal Co. v. Mahon*,⁴²⁹ which struck down a state law restricting coal mining activities.⁴³⁰ *Pennsylvania Coal* continues to cast a shadow over environmental causes.⁴³¹ Individual liberty and security now appears to be a growing concern of Justice Brennan in the environmental property law context, which is worthy of especial reflection, because he is undoubtedly the member of the Court most sympathetic to environmental concerns.⁴³²

428. L. BECKER, *supra* note 225, at 74 ("[I]f property rights are to mean anything, surely they must mean that one can refuse to use the property to approximate the ideal of everyone's rational self-maximization.") (emphasis in original); Reich, *supra* note 283, at 774 ("Liberty is the right to defy the majority and to do what is unreasonable. The great error of the public interest state is that it assumes an identity between the public interest and the interest of the majority."). Professor Reich, in his classic article on the increasing reliance of the individual on governmental largesse, warned of the dangers to individual liberty inherent in the "public interest" standard. See Reich, *supra* note 283, at 756-74. Reich compared the rise of the public interest state, in which nothing is said to be "owned" or "vested" in individuals, to feudal times. See *id.* at 768-71; cf. Snare, *The Concept of Property*, 9 AM. PHIL. Q. 200, 205 (1972) (comparing rights of individuals in a corporation to rights of serfs in feudal system). Although Reich was not concerned directly with private property rights in natural resources, his discussion is extremely pertinent. First, his entire thesis was based on the stated premise that traditional property rights were on the decline as government was becoming the sole supplier of those rights. See Reich, *supra* note 283, at 733-34. Second, rights in natural resources are becoming a matter of governmental largesse, both because government has retained property rights in vast public lands to which it only issues limited leases and in the wake of extensive governmental permitting schemes. Consequently, Reich's concerns are now equally applicable to individual rights in natural resources. In both cases, property originates in the state. The problems with answering disappointed private expectations with the simple rationale that "government largesse" is not a "right," exist equally in both circumstances. *Id.* at 778-79. Thus, just as Reich faults reformers in the 1930's for going too far in reacting to excesses of private property, see *id.* at 772-73, environmentalists must now take care to avoid similar excesses in the context of natural resources. The need for balance is, of course, on both sides of the equation. See Frug, *supra* note 229, at 1088-89, 1090 (faulting liberalism for excessive stripping of power of towns in response to perception that towns restricted individual liberty); see also Shaffer, *Men and Things: The Liberal Bias Against Property*, 57 A.B.A. J. 123, 125-26 (1971).

429. 260 U.S. 393 (1922); see *supra* text accompanying notes 245-49.

430. Perhaps the most telling example is Justice Holmes' recognition that "the natural tendency of human nature is to extend the [police power] qualification more and more until at last private property disappears." See 260 U.S. at 415.

431. See D. MANDELKER, *supra* note 399, at 38-54.

432. See *San Diego Gas & Elec. Co. v. San Diego*, 450 U.S. 621, 636-61 (1981) (Brennan, J., joined by Marshall, Stewart, and Powell, JJ., dissenting). In particular, Justice Brennan's strongly worded dissent showed his willingness to subject those who, in the name of environmental quality, violate constitutional guarantees of security in private property rights, to the same type of monetary remedies appropriate for police officers who violate personal liberties. See *id.* at 661 & n.26. Significantly, Justice Rehnquist, while

This should not be surprising. Individual autonomy and security have traditionally been concerns of liberal members of the Court in the context of "new property" rights in matters such as social security and welfare benefits.⁴³³ Indeed, liberal thought, in particular concern for private autonomy and security, was the main impetus behind the framers' inclusion of the just compensation clause in the fifth amendment.⁴³⁴ No valid reason supposes that liberal ideology will tolerate governmental deprivation of individual expectations on the basis of general public interest standards or conclusory labels of subordinate interests in the natural resources context any more than it has tolerated governmental deprivation in the context of these "traditional" new property rights.⁴³⁵

concurring in the majority decision that no final decision was reached in the lower court and thus the Court should not reach the merits, *see id.* at 633-34 (Rehnquist, J., concurring), added that he "would have little difficulty agreeing with much of" Justice Brennan's dissent. *See id.* at 633-34 (Rehnquist, J., concurring). Moreover, even the majority added that the constitutional merits of the taking claim were "not to be cast aside lightly." *See id.* at 633.

Several courts of appeals have subsequently read Justice Brennan's dissent as representing the view of a majority of the Court. *See* *Hamilton Bank v. Williamson County Regional Planning Comm'n*, 729 F.2d 402, 408-09 (6th Cir. 1984), *rev'd on other grounds*, 105 S. Ct. 3108 (1985); *Martino v. Santa Clara Valley Water Dist.*, 703 F.2d 1141, 1148 (9th Cir.), *cert. denied*, 464 U.S. 847 (1983); *Barbian v. Panagis*, 694 F.2d 476, 482 n.5 (7th Cir. 1982); *Devines v. Maier*, 665 F.2d 138, 142 (7th Cir. 1981); *Hernandez v. City of Lafayette*, 643 F.2d 1188, 1199-1200 (5th Cir. 1981), *appeal dismissed*, 455 U.S. 901 (1982); *see also* *Williamson County Regional Planning Comm'n v. Hamilton Bank*, 105 S. Ct. 3108, 3124-25 (1985) (Brennan, J., joined by Marshall, J., concurring) (adhering to views expressed in *San Diego Gas* dissent). *But see* *Citadel Corp. v. Puerto Rico Highway Auth.*, 695 F.2d 31, 33 n.4 (1st Cir. 1982), *cert. denied*, 464 U.S. 817 (1983) (refusing to read *San Diego Gas* dissent as reflecting majority view of Supreme Court). *See generally* Kmiec, *Regulatory Takings: The Supreme Court Runs Out of Gas in San Diego*, 57 IND. L.J. 45 (1982) (arguing in favor of damages remedy); Stoebuck, *San Diego Gas: Problems Pitfalls and a Better Way*, 25 WASH. U.J. URBAN & CONTEMP. L. 3, 5-7 (1983) (arguing dissent in *San Diego Gas* misguided). More recently, however, in a regulatory takings case in which the Court again stopped short of reaching the damage remedy issue, Justice Stevens filed a concurring opinion in which he took issue with the *San Diego Gas* dissent. Justice Stevens argued that damages were not a constitutionally compelled remedy for a police power regulation deemed a taking, even for the period of time between the regulation's enactment and its ultimate invalidation. Instead, one must assume good faith of regulators and so long as fair procedures are available to challenge the regulation, no independent damage remedy arises under the takings clause for the interim harm caused. *See Williamson County*, 105 S. Ct. at 3125-27. In the 1985 term the Court has accepted another takings case that potentially raises the damage remedy issue. *See MacDonald v. County of Yolo*, 106 S. Ct. 244 (1985) (probable jurisdiction noted).

433. *See, e.g.*, *Bishop v. Wood*, 426 U.S. 341, 355-61 (1976) (White, J., joined by Brennan, Marshall, and Blackmun, JJ., dissenting); *id.* at 361-62 (Blackmun, J., joined by Brennan, J., dissenting); *Mathews v. Eldridge*, 424 U.S. 319, 349-50 (1976) (Brennan, J., joined by Marshall, J., dissenting); *Arnett v. Kennedy*, 416 U.S. 134, 206-31 (1974) (Marshall, J., joined by Douglas and Brennan, JJ., dissenting). *See generally* L. TRIBE, *supra* note 179, at 514-39; *see also* *Cleveland Bd. of Educ. v. Loudermill*, 105 S. Ct. 1487, 1493 (1985) (explicitly rejecting *Arnett v. Kennedy* plurality "bitter with sweet" theory).

434. Comment, *The Origins and Original Significance of the Just Compensation Clause of the Fifth Amendment*, 94 YALE L.J. 694, 694, 708-10 (1985).

435. Professor Alexander has recently argued forcefully for the rejection of the tradi-

To appreciate and accommodate the precise nature of this conflict necessitates a candid formulation of the competing values at stake.⁴³⁶ At the outset this formulation will require determination of the relative weights to give to different aspects of environmental quality, ranging from purely aesthetic concerns to severe public health hazards. Nothing justifies the failure to recognize that these objectives vary in social importance and thus deserve varying weight in the judicial balance.⁴³⁷

In addition, a formulation of competing values will require assessing the weightiness appropriate for different aspects of private expectations,

tronal judicial analysis for determining whether a legally protected property interest exists. See Alexander, *supra* note 239, at 1597-98. As he sees it, that test essentially inquires whether the interest in question is in any way "subordinate" to a preexisting governmental interest. See *id.* at 1575, 1585-87. Alexander argues that the subordination test makes little sense in the context of new property rights when the government is the source of property in the first instance. In that case, the analysis would deny any meaningful protection to individual security and thus ignores an essential purpose of private property. *Id.* at 1597-98. When the government is a player, Alexander argues, the concept of property must be approached on a more teleological basis. See *id.* at 1599.

Commentators have already signaled out the federal navigation servitude, a close relative of the trust doctrine. See *supra* text accompanying notes 23-44. The servitude depends on a fictional reservation of a prior superior interest, rather than on an honest and candid assessment of the competing values at stake. See Costonis, *Presumptive and Per Se Takings: A Decisional Model for the Taking Issue*, 58 N.Y.U. L. REV. 465, 525 (1983); see also Alexander, *supra* note 239, at 1587-88 & n.127, 1594-98. A recent Tenth Circuit ruling reflects similar concern about the navigation servitude. See *Cherokee Nation v. United States*, No. 84-2355, slip op. at 11 (10th Cir. Jan. 1, 1986) ("When the [navigation servitude] affects private ownership not connected to navigational use, the court must balance the public and private interests to decide whether just compensation is due.").

436. The need for explicit consideration of the underlying values and competing social policies at stake, especially in confrontations between assertions of governmental power and private property rights, has been a relentless theme among the commentators and its demand is arising in the environmental arena. See Alexander, *supra* note 239, at 1552, 1592; Oakes, *supra* note 224, at 626; Reich, *supra* note 283, at 787; Rose, *supra* note 245, at 598; Costonis, *supra* note 435, at 496, 499-501, 524-25; Yellin, *Science, Technology, and Administrative Government: Institutional Designs for Environmental Decisionmaking*, 92 YALE L.J. 1300, 1333 (1983) (must make "commitment throughout our educational system and government to exposing the real complexities of [technological] decisions" facing the nation); see also Dewey, *Logical Method and Law*, 10 CORNELL L.Q. 17, 26 (1924) ("Failure to recognize that general legal rules and principles . . . [need] to be constantly tested by the way in which they work out in . . . concrete situations, explains the otherwise paradoxical fact that the slogans of liberalism of one period often become the bulwarks of reaction in a subsequent era."); Donahue, *supra* note 211, at 58 (future of property depends on resolution of tension between individualism and communalism); Frug, *supra* note 229, at 1088 (failure of liberalism to discern which aspects of municipal authority truly infringed upon individual freedoms led to excessive stripping of legitimate and necessary role of municipalities); Philbrick, *supra* note 211, at 693, 730-31; cf. Kelman, *Trashing*, 36 STAN. L. REV. 293, 321-26 (1984).

437. Although Justice Brennan rejects a takings test based on a noxious use analysis, see *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 133 n.30 (1978), clearly at bottom, whether the purpose of a police power measure challenged as an unconstitutional taking is to promote aesthetic concerns or to prevent a threat to public health and safety, the analysis must affect the judicial outcome. See Costonis, *supra* note 435, at 496 n.126. Justice Brennan's desire not to endorse such an analysis in *Penn Central*, a case

ranging from those rooted in individual security and personality to those more related to economic power.⁴³⁸ In today's industrialized society, property increasingly is accumulated as a source of power and often extends to substantial control over the means of production, the proper utilization of which is essential to all society. The personal liberty implications of regulating the exercise of this latter type of property right are less clear or at least less compelling.⁴³⁹ Accordingly, the interest in property as a source of power should be entitled to less weight in the judicial analysis.⁴⁴⁰ The Supreme Court's refusal to place significant weight on loss of profits

involving historic preservation, is understandable, but does not detract from the logic of differentiation. Certainly, the Court already performs just such a differentiation in other areas of constitutional adjudication, most prominently in its identification of "compelling" state interests as opposed to merely "legitimate" governmental objectives. See L. TRIBE, *supra* note 179, at 580-84 (free speech); *id.* at 891-92 ("rights of personhood"); *id.* at 1002-03 (equal protection). Of particular pertinence, the Court has already begun to differentiate between different sorts of state interests in natural resources in its recent commerce clause cases, see *Sporhase v. Nebraska ex rel. Douglas*, 458 U.S. 941, 956 (1982), placing conservation, and health and safety highest, see Hellerstein, *Hughes v. Oklahoma: The Court, the Commerce Clause, and State Control of Natural Resources*, 1979 SUP. CT. REV. 51, 60; Tarlock, *So Its Not "Ours"—Why Can't We Still Keep It? A First Look at Sporhase v. Nebraska*, 18 LAND & WATER L. REV. 137, 162-63 (1983). Justice Brennan, moreover, appears willing to endorse this approach to consider environmental objectives in the first amendment context when he places less weight on assertions of aesthetic concerns than on other environmental concerns, such as health and safety. See *Members of the City Council v. Taxpayers for Vincent*, 104 S. Ct. 2118, 2138 & n.3 (1984) (Brennan, J., dissenting); *Metromedia, Inc. v. City of San Diego*, 453 U.S. 490, 528-30 (1981) (Brennan, J., concurring). So too, to determine the validity under the contract clause of state police power regulation that substantially impairs contractual expectations, the Court inquires whether the regulation furthers a "significant and legitimate public purpose . . . such as the remedying of a broad and general social or economic problem." See *Energy Reserves Group v. Kansas Power & Light Co.*, 459 U.S. 400, 411-12 (1983). Finally, Justice Rehnquist, joined by two other members of the Court dissenting in *Penn Central*, has already endorsed the concept in the context of a takings challenge, going so far as to assert that police power measures that forbid uses of property "dangerous to the safety, health, or welfare of others" cannot be deemed unconstitutional takings, regardless of economic impact. See 438 U.S. at 145 (Rehnquist, J., dissenting). At least implicitly the Court takes into account such considerations in its takings analysis when it considers both the nature of the governmental action challenged and the reasonableness of the investments being frustrated by that action. For example, in *Ruckelshaus v. Monsanto Co.*, 104 S. Ct. 2862 (1984), the Court dismissed a takings challenge primarily on the grounds that any investment-backed expectations Monsanto had were unreasonable. See *id.* at 2875. The gravamen of the Court's ruling was that Monsanto should have known that its activities in the pesticide area would be subject to increasing governmental regulation given the tremendous public interest in such oversight.

438. In archaic law and in the writings of certain philosophers, most notably Kant, Hegel, and Mill, property rights represent an important extension of individual personality and their sanctity a matter of morality and natural rights. See L. BECKER, *supra* note 225, at 62-64, 102-03; Radin, *supra* note 424, at 1002-13; Rodgers, *Bringing People Back: Toward A Comprehensive Theory of Taking in Natural Resources Law*, 10 ECOLOGY L.Q. 205, 208-11 (1982); Smith, *supra* note 225, at 35; Soper, *supra* note 225, at 64.

439. See Cohen, *supra* note 238, at 12-14; Donahue, *supra* note 211, at 57; Philbrick, *supra* note 211, at 696-97, 726; Reich, *supra* note 283, at 771-74; see also L. BECKER, *supra* note 225, at 40.

440. See Costonis, *supra* note 435, at 499-501, 518 & n.214.

occasioned by a governmental restriction may reflect these considerations.⁴⁴¹ Most clearly reflecting these concerns, however, is the Court's recent decision to uphold a state law that utilized eminent domain power to break up monopolistic land holdings in Hawaii. In *Hawaii Housing Authority v. Midkiff*⁴⁴² the Court agreed that it was entirely proper for a state to address the "perceived social and economic evils of a land oligopoly" by redistributing fees simple in the land.⁴⁴³ According to the Court, it was a "rational approach to . . . correcting market failure."⁴⁴⁴

Finally, the coherent development of natural resources law will require explicit recognition of the special relationship of the natural and physical environment to man. In particular, the law must reflect the fundamental importance of natural resources in their virgin state,⁴⁴⁵ the physical characteristics of the resources,⁴⁴⁶ and the physical characteristics of the earth's inhabitants.⁴⁴⁷ To be sure, this is no small task nor one likely to be achieved soon. Indeed, when one adds to these three basic factors the changing nature of human values, knowledge, technology, and

441. See *supra* note 261.

442. 104 S. Ct. 2321 (1984).

443. See *id.* at 2330.

444. See *id.*; see also *United States v. Locke*, 105 S. Ct. 1785, 1793 (1985) ("[V]ested economic rights are held subject to the Government's substantial power . . . to redistribute the benefits and burdens of economic life."); Comment, *The Sherman Act and Land: The Interstate Commerce Requirement*, 3 COLUM. J. ENVTL. L. 306, 312-13 (1977).

445. Simply put, our natural resources and physical environment are the source of all human sustenance and wealth. They provide the source of energy, materials, and nutrients upon which all current and future life on the planet depend, including human beings. See Wiel, *supra* note 280, at 456-57.

446. "The principles of the decalogue may be applied to the conduct of men in every country and clime, but rules respecting tenure of property must yield to the physical laws of nature . . ." *Yunker v. Nichols*, 1 Colo. 551, 553 (1872). See generally *Outer Space*, *supra* note 297, at 547-48, 563, 567, 569, 572, 578-79; Wiel, *supra* note 280, at 431, 439, 456; Note, *Thaw in International Law? Rights in Antarctica Under the Law of Common Spaces*, 87 YALE L.J. 804, 846-47 (1978). Our natural resources may be necessary to satisfy certain fundamental needs, but their own physical characteristics define at the outset how we may in fact utilize them to satisfy those needs. Natural resources theoretically may break down into a chemist's periodic table of elements, but in the natural environment those elements find expression in myriad physical forms exhibiting infinite physical characteristics. Moreover, the resources are arranged in a complex ecological web in which the continued maintenance of some are highly dependent upon the presence or absence of another.

447. The physical characteristics of human life, in particular its fragility, in turn also define the relationship of man to the natural environment. While *homo sapiens* are a self-propagating species, each individual is mortal and thus has limited time horizons. Individual mortality and health generally, moreover, do not depend solely on internal limits but depend principally on the presence or absence of external environmental factors, such as temperature, pressure, or certain chemical compounds that interact with our biologic functions. Finally, existing and future generations are not discrete, nonconcurrent groups that can be isolated by clear temporal boundaries, like yearly corn harvests. See Steiner, *supra* note 399, at 253; see also L. BECKER, *supra* note 225, at 72. They represent continuous, concurrent, and overlapping groups.

social demographics, and the inherent complexities of our legal system, it is no wonder that the assignment of private property rights in natural resources has proved to be so intractable a task. Whether pursuing the goal of allocative efficiency through market mechanisms or of individual integrity through secure territory, the notion of private property runs into overwhelming obstacles in the context of natural resources. The fundamental importance of the resources and their own physical characteristics coupled with those of humans dictate the potential enormity of the externalities associated with the exercise of individual rights in the resources. Modern technology and the erosion of traditional family values exacerbate the problem—modern technology by increasing the potential impact of individual decisions both geographically and temporally, and traditional family values by decreasing ties between existing and future generations.⁴⁴⁸

Flexibility is becoming an essential ingredient in the makeup of laws governing private and public rights in natural resources to respond to these varied physical and sociological demands. This is especially true given the rapid pace at which new knowledge is nowadays acquired and the high costs at stake in preventing needless environmental degradation. Granted, flexibility in legal rules is often at the expense of stability that is important to individual security. So too, flexible laws are susceptible to accusations that they are vague, and thus they suffer from infirmities akin to those of the public trust doctrine. The question, though, becomes who should and how to accommodate these competing concerns.⁴⁴⁹ Who, in other words, is the appropriate manager of a given resource? It is here, perhaps most of all, that we find the public trust doctrine's greatest flaws—a lack of candor and a lack of an established institutional framework for lawmaking.

First, like other already abandoned property-based legal fictions,⁴⁵⁰ the trust doctrine finds its strength and tenacity in its resistance of candor

448. Still, rather than simply justifying a total denial of private property rights in natural resources, the stated premises and additional considerations serve a much less extreme and more constructive task. They justify a strong role for the government in resolving the sorts of conflicts that, as these premises indicate, inevitably arise with vital natural resources. In addition, they support the threshold assumption that the aim of the government will be to resolve those conflicts in a manner that minimizes needless degradation of natural resources because only in that manner will the government be acting to minimize future conflicts. The significance of these premises, accordingly, is twofold. First, they suggest a framework for evaluating the validity of governmental restrictions that limit the exercise of private rights in resources. Second, they reflect the underlying rationale for heightened judicial scrutiny of governmental measures that themselves threaten the natural environment with needless degradation.

449. Cf. Epstein, *Notice and Freedom of Contract in the Law of Servitudes*, 55 S. CAL. L. REV. 1353, 1366 (1982) (“[G]iven the pervasive ignorance over the trade-off between the virtues of flexibility and certainty, and between the vices of indefiniteness and rigidity, there is simply no persuasive reason to embrace one extreme to the exclusion of the other.”).

450. See S. MILSOM, *HISTORICAL FOUNDATIONS OF THE COMMON LAW* 60-70 (2d ed. 1981); P. OLIVIER, *LEGAL FICTIONS IN PRACTICE AND LEGAL SCIENCE* 88-91 (1975).

and its refusal to compromise its principles. In this way, promoting public trust analysis runs counter to the compelling need for self-examination, candor, and flexibility in the reshaping of natural resources laws.⁴⁵¹ Second, unlike the emerging scheme of new property rights in natural resources that is developing largely at the administrative level (generally instigated by the legislature and overseen by the courts), the public trust doctrine provides no ready framework for the assignment of lawmaking authority. The legal doctrine is inherently suspicious of legislative and administrative lawmaking regarding natural resources; yet, at bottom, it offers nothing much in its place. By addressing none of the critical tasks currently facing the development of natural resources law, and indeed potentially resisting those efforts, the public trust doctrine threatens to fuel the growing conflict in liberal ideology and impede the fashioning of a unified system of law.

B. Toward a Strategic Retreat from the Public Trust Doctrine

Finally, even apart from its failure to provide needed candor, and its inflexibility in the face of changing values and knowledge, reliance on the doctrine should be abandoned because it offers too tenuous a basis for protecting important environmental protection and resource conservation objectives. Three separate factors, discussed in turn below, favor such a strategic retreat. First, trust values will never adequately reflect modern environmental concerns. Second, the doctrine unjustifiably relies on the judiciary to further its environmental goals and, consequently, ultimately depends on a proenvironment judicial bias that is not enduring. Third, recent judicial decisions, in particular those of the Supreme Court, make it clear that any special legal status the trust rationale has enjoyed in the past is waning.

1. The Failure of the Trust to Reflect Modern Environmental Concerns

The strength of the public trust doctrine necessarily lies in its origins; navigable waters and submerged lands are the focus of the doctrine, and the basic trust interests in navigation, commerce, and fishing are the object of its guarantee of public access. Commentators and judges alike have made efforts to "liberate," "expand," and "modify" the doctrine's scope,⁴⁵² yet its basic focus remains relatively unchanged. Courts still repeatedly return to the doctrine's historical function to determine its pres-

451. Judge Oakes recently stressed the importance of identifying value judgments in judicial analyses in the property rights context and in particular the great need to avoid the "tyranny of labels." See Oakes, *supra* note 224, at 626. The public trust doctrine certainly epitomizes such an uncontrollable label. Indeed, that the doctrine has been invoked historically to promote developmental activities as much as environmental quality objectives suggests the danger of environmentalists embracing the public trust label.

452. See Sax, *supra* note 10, at 192-93; Stevens, *supra* note 10, at 221-23.

ent role.⁴⁵³ When the doctrine is expanded, more often than not the expansions require tortured constructions of the present rather than repudiations of the doctrine's past.⁴⁵⁴

Achievement of modern environmental protection and resource conservation goals, moreover, ultimately depends not so much on an "expansion" of public trust values as it may require a repudiation of the doctrine's focus and traditional values. Today, societal concerns with environmental protection and resource conservation extend beyond navigable waters to include far-ranging elements of our ecosystem, such as the ozone layer, unheard of in Roman times. Our economy no longer depends so exclusively on water navigation.⁴⁵⁵ Our economy "navigates" by air, by motor vehicle, and, indeed, by way of the electromagnetic spectrum. So too, the promotion of commerce, a traditional public trust doctrine objective,⁴⁵⁶ is hardly a focus of resource protection values. Indeed, more often than not it serves as a counterweight to those values in the formulation of public policy because of its prodevelopment bias. Finally, public access, undoubtedly the single most important public trust guarantee,⁴⁵⁷ is often at odds with modern environmental conservation and protection laws.⁴⁵⁸ Increasingly, those laws must restrict access to protect resources.⁴⁵⁹ One telling sign of a legal fiction's demise is that the words they represent change meaning to such an extent that, as with the trust doctrine currently, the fiction's application and substance are simply a matter of individual discretion.⁴⁶⁰

In short, the way we and our laws look upon natural environment has changed fundamentally since the development of the public trust doctrine. The legal categories and social values upon which the doctrine is

453. See, e.g., *San Diego County Archaeological Soc'y, Inc. v. Compadres*, 81 Cal. App. 3d 923, 925-26, 146 Cal. Rptr. 786, 787-88 (1978).

454. See, e.g., *Morse v. Oregon Div. of State Lands*, 285 Or. 197, 200-03, 590 P.2d 709, 711-12 (1979) (en banc); see also Sax, *supra* note 10, at 185-86.

455. Today, moreover, the governmental interest in waterways is not so much navigability as the critical ecological role of the specific aquatic resource. See *Zabel v. Tabb*, 430 F.2d 199, 201-03 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971). Still, the extent of sovereign authority over the resource continues to focus on old categories of navigability, leading to costly, time-consuming, and essentially irrelevant litigation over the proper application of those categories. Rosen, *supra* note 16, at 561-62 & n.6. Clearly it makes far more sense for the extent of governmental authority to turn on the true focus of public concern.

456. See *supra* text accompanying note 84.

457. See *supra* text accompanying notes 138-43.

458. See e.g., *Bradford v. Nature Conservancy*, 224 Va. 181, 190, 294 S.E.2d 866, 870 (1982) (hunting club members desiring to walk through Nature Conservancy land); see also *People v. El Dorado City*, 96 Cal. App. 3d 403, 405-07, 157 Cal. Rptr. 815, 816-17 (1980) (trust doctrine invalidates prohibition on use of navigable waters by nonresident boaters when prohibition based on alleged pollution and fire hazards).

459. For example, the ironic consequence of increased public appreciation of wilderness areas is greater need to restrict public access to those areas. See R. NASH, *WILDERNESS AND THE AMERICAN MIND* 317-41 (3d ed. 1982).

460. L. FULLER, *supra* note 164, at 145.

based have little to do with modern concern. Ultimately, the public trust doctrine does not need to be "liberated," so much as our natural resources laws, including the trust doctrine, must be freed from the past.

2. *Undue Reliance on Proenvironment Judicial Bias*

A second long-term weakness that counsels abandonment of the public trust doctrine is its implicit assumption that the judiciary is in the best position to safeguard environmental concerns and that it will in fact do so.⁴⁶¹ For this reason, critics typically complain that the public trust doctrine is antidemocratic and a historical "sham" or "mask" for judicial usurpation of legislative and executive branch power.⁴⁶² Even more fundamentally, however, good reason suggests questioning the validity of the assumption that the judiciary will lean toward environmental protection, apart from philosophical concerns about the proper workings of a democracy.

First, although it is true that judicial concern is naturally triggered by the typically unrepresented environmental interests in the political process,⁴⁶³ the courts also have demonstrated considerable concern with governmental impingements on individual security interests.⁴⁶⁴ Environmental concerns are not guaranteed a victory in the courts should a collision with individual security interests occur.

Second, the favorable bias toward environmental protection, exhibited by the courts in the 1970's, might not continue. In the past, courts have used the public trust doctrine to support developmental activities they favored.⁴⁶⁵ The vagueness of the doctrine's mandate lends to the risk that the doctrine could still further those interests. Certainly, environmental interests deserve and require a firmer and more secure position in our laws.

Finally, regardless of judicial bias or desire, courts may lack sufficient competence in the environmental arena. Questions arising in the environmental and natural resources law field can be so inordinately complex and the competing societal concerns at stake so fundamental that at some level judicial second-guessing of administrative agency action may not be particularly productive.⁴⁶⁶ Better solutions, suggested by critics of

⁴⁶¹ Sax *supra* note 3, at 566; *see also* Sax, *supra* note 10, at 193.

⁴⁶² *See* Deveny, *supra* note 10, at 13-14; Comment, *supra* note 10, at 457; *see also* Coquillette, *supra* note 10, at 799 (judicial balancing of utilities in tort cases provides courts with too much discretion to evade democratic processes); Walston, *supra* note 272, at 81.

⁴⁶³ *See supra* text accompanying notes 335-36.

⁴⁶⁴ *See supra* text accompanying note 433.

⁴⁶⁵ *See supra* notes 250-56 and accompanying text. Notably, in one of his earliest writings, Justice Brandeis criticized the Massachusetts Supreme Judicial Court for this type of ruling, characterizing it as "judicial legislation . . . of doubtful expediency." *See* Warren & Brandeis, *supra* note 250, at 211.

⁴⁶⁶ *See* Stewart, *supra* note 351, at 1586 (courts "ill-equipped" to discern appropriate allocation or distribution of natural resources).

the judicial function in environmental matters, may reside in new modes of administrative decisionmaking that are less dependent on effective judicial oversight of agency action to ensure full representation of competing considerations.⁴⁶⁷ One possibility suggested is to establish surrogate representatives of varying interests within regulatory agencies.⁴⁶⁸ Whatever the merits of these proposals, their relevance to the wisdom of the public trust doctrine is clear. They stand for the proposition that the solutions to the sorts of difficult problems society faces in environmental areas do not lie with the judiciary, while the trust doctrine ultimately depends on the contrary thesis.

3. *Contrary Direction of Recent Supreme Court Cases*

Finally, in recent cases, the Supreme Court has severely undercut the public trust doctrine rationale. In particular, the Court has plainly forecast its view that the public trust doctrine expresses no more than the sovereign's special interest in an aspect of its general police power authority.⁴⁶⁹ According to the Court, claims of sovereign ownership are but legal fictions that offer no special immunity to challenges of transgressing constitutional limits. The Court's recent decisions in the context of commerce,⁴⁷⁰

467. See Yellin, *supra* note 436, at 1302-05, 1325. For a listing of cases in which courts made fundamental scientific errors, see *id.* at 1325 n.150.

468. *Id.* at 1328. Of course, this is not a new idea. Professor Stewart discussed several methods of furthering "interest representation" in administrative lawmaking in his classic article on the reformation of administrative law. See Stewart, *supra* note 305, at 1790-1802. Recently, however, some efforts have been made in this direction. On a trial basis, the EPA has begun a new method of rulemaking based in large part on a process of "regulatory negotiation" in which the agency invites potentially affected parties to come together to develop a consensus rule. The agency is not bound to accept the rule, but the proposal certainly carries weight as part of the administrative record of the agency decision. See generally Anderson, *Negotiation and Informal Agency Action—The Case of Superfund*, 1985 DUKE L.J. 261, 343-44 & nn.321-22.

469. In a revealing dissent, Justice Brennan recently paused to characterize the *Illinois Central* decision, describing it as standing merely for the basic proposition that "all private rights of property, even if acquired through contract with the State, are subordinated to reasonable exercises of the States' lawmaking powers in the areas of . . . environmental protection." See *United States Trust Co. v. New Jersey*, 431 U.S. 1, 50 (1977) (Brennan, J., dissenting).

470. See *Sporhase v. Nebraska ex rel. Douglas*, 458 U.S. 941, 951 (1982) (sovereign ownership of water); see also *Hughes v. Oklahoma*, 441 U.S. 322, 334-35 (1979) (sovereign ownership of minnows). In both cases, the Court rejected the states' arguments that their laws were exempt from the negative implications of the commerce clause because they owned the natural resources being regulated in their sovereign capacity. The Court described their ownership claims as legal fictions and characterized the state power in question as an exercise of police power and the ownership claim as but representing the special state interests in the resource. See *Sporhase*, 458 U.S. at 950-52; *Hughes*, 441 U.S. at 333-38. In *Hughes*, the Court overruled *Geer v. Connecticut*, 161 U.S. 519 (1896), in which the Court had previously exempted a state wildlife law from commerce clause strictures on ownership grounds. Notably, the *Geer* decision, a contemporary of *Illinois Central*, had described the state power in terms of the public trust doctrine and had alluded to prin-

supremacy,⁴⁷¹ and takings clause challenges⁴⁷² are all consistent in this regard. In a 1984 ruling, moreover, the public litigants' decision to rest their case on a public trust property interest rationale led to their eventual undoing in the Supreme Court as the Court looked in vain for some actual evidence of a prior reservation of a real property interest.⁴⁷³

In addition, the Court's recent case law is inconsistent with the basic trust doctrine principle that courts should promote environmental conservation by narrowly reading the requirement that legislative enactments must promote a "public purpose."⁴⁷⁴ The clear trend in the Court's opinions is to provide states with the broadest leeway to determine what constitutes permissible public purposes.⁴⁷⁵ That the trust doctrine is ultimately a matter of state and not federal law, moreover, does not alter the import

ciples of Roman law that certain resources are common property owned in trust by the state. *Hughes*, 441 U.S. at 325, 341. *But see* *Hellerstein*, *supra* note 437, at 88-89 (different commerce clause test may apply to tidelands than to wildlife).

471. *See* *California v. United States*, 438 U.S. 645, 672-78 (1978). While the State of California prevailed in this case, the Court did not indicate that the state powers at issue, involving the control over state waters, amounted to anything more than the normal exercise of state police powers. *See generally* *Ivanhoe Irrigation Dist. v. McCracken*, 357 U.S. 275 (1958); *Trelease, Government Ownership*, *supra* note 422. The California Supreme Court has held that the public trust doctrine applies to navigable waters. *Natural Audubon Soc'y v. Superior Court*, 33 Cal. 3d 419, 437, 658 P.2d 709, 721, 189 Cal. Rptr. 346, 357 (1983). Also, in *Block v. North Dakota*, 461 U.S. 273 (1983), the United States Supreme Court rejected a state's argument that its title to sovereign trust lands was entitled to special protection in a quiet title action brought by the United States. *See id.* at 287. Justice O'Connor, dissenting, appeared willing to attach weight to the trust nature of the sovereign ownership of the lands. *See id.* at 294-96 (O'Connor, J., dissenting). The Eighth Circuit and the district court, both reversed by the Court, each had based its contrary ruling on the public trust doctrine. *See* *North Dakota ex rel. Bd. of Univ. & School Lands v. Andrus*, 506 F.Supp. 619, 624-25 (D.N.D. 1981), *aff'd*, 671 F.2d 271 (8th Cir. 1982). Finally, just as the Supreme Court has held that the supremacy clause does not allow the federal government to avoid the strictures of the takings guarantee by claiming it is just "pre-empting" state property law, *Ruckelshaus v. Monsanto Co.*, 104 S. Ct. 2862, 2878 (1984), state law cannot avoid the supremacy clause simply by claiming that its power is a matter of property law and not state police power.

472. *See* *Kaiser Aetna v. United States*, 444 U.S. 164, 172 (1979). In *Kaiser Aetna* the Supreme Court rejected the United States' argument that its requirement that an otherwise private pond be open for public access was immune from takings challenge because the requirement merely represented an exercise of the sovereign's navigation servitude. The Court described the federal navigation servitude, a historical companion of the public trust doctrine, *see supra* text accompanying notes 23-44, as simply an expression of the government's "important public interest in the flow of [navigable] interstate waters." *See* 444 U.S. at 175. In this manner, the Court treated the governmental interest not as an absolute property right, but simply as a consideration deserving of great weight in the judicial balance. The interest, however, was not enough under the facts of that particular case to overcome the equities weighing in favor of the private party.

473. *See* *Summa Corp. v. California ex rel. State Lands Comm'n*, 104 S. Ct. 1751, 1758 (1984); *supra* note 352.

474. *See supra* text accompanying notes 116-28.

475. *See supra* text accompanying notes 233-35.

of the Court's rulings. Federal constitutional restrictions, of course, apply to the doctrine and, in considering the merits of state governmental actions under the doctrine, state courts can be expected to look to recent Supreme Court cases for guidance. Indeed, the steady infusion of the "lodestar" public trust decision, *Illinois Central Railroad*, into state laws ably illustrates the process. Consequently, it makes little strategic sense for environmentalists to continue to base important resource conservation and environmental protection objectives on a legal doctrine that promises to be soon undermined by the High Court. This is especially true when traditional legal doctrine offers an alternative, more viable, and certain basis of legal authority that does not depend on an increasingly shaky legal fiction.⁴⁷⁶

CONCLUSION

Lifting the patch we may trace out the patterns of tension that tore the [law's] fabric [of theory] and at the same time discern elements in the fabric itself that were previously obscured from view. In all this we may gain a new insight into the problems involved in subjecting the recalcitrant realities of human life to the constraints of a legal order striving toward unity and systematic structure.⁴⁷⁷

Over the last fifteen years, the public trust doctrine has been the object of a remarkable revival in natural resources law. At the time of its "Renaissance" it served to highlight important societal values not then in focus. Accelerating changes in the law suggest that it is now time to bring that revival to a close—to lift the public trust doctrine "patch" from the emerging fabric of modern natural resources law. Operation of the doctrine inevitably depends on the judicial application of labels that obscure the true factors behind the judicial decision. Moreover, those legal categories upon which the doctrine inexorably relies may have been meaningful once, but they have become arbitrary and wooden with age. Natural resources law has for too long been inflicted with a host of such false legal categorizations, inhibiting its developments in times of new information and changing social values. Indeed, the recent history of natural resources law is most prominently marked by a continuous struggle to be freed of historical shackles so that natural resources law can properly be fused with and into modern notions of tort and property law.

Simply put, the public trust doctrine, even if aimed at promoting needed resource conservation and environmental protection goals, is a step in the wrong direction. The doctrine amounts to a romantic step

476. The historical underpinnings upon which the public trust doctrine is based, especially Roman law, have in recent years come under sharp attack by commentators, thus further weakening the long-term viability of the doctrine. *See supra* note 10.

477. L. FULLER, *supra* note 164, at viii.

backward toward a bygone era at a time when we face modern problems that demand candid and honest debate on the merits, including consideration of current social values and the latest scientific information. The complex and pressing resource allocation and environmental protection issues we currently face will continue to tax severely the most concerted societal efforts and the best legal and scientific minds. Dramatic shifts in legal rules, primarily in traditional notions of private property, will continue to be necessary, challenging the patience and understanding of the public, to whom the law must ultimately justify its legitimacy. Although perhaps unfortunate, short of a major redirection of this nation's social and economic infrastructure,⁴⁷⁸ little, if any, room is left in these tasks ahead for the mythopoeism of the public trust doctrine.

478. Theoretically, the need for trust-like property law fictions could return in the future should, as suggested recently by Professors Piore & Sabel, a second industrial divide occur in the United States, and an economy and society based on "mass production" and "market liberalism" be displaced by "flexible specialization" and "yeoman democracy," in which notions of community and common properties, once prevalent, might return. See M. PIORE & C. SABEL, *THE SECOND INDUSTRIAL DIVIDE* 305 (1984).